

Building a School for *the* Future: The Rebuilding of St Paul's School, London

1878-1884

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Author's Declaration

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ABSTRACT

This thesis takes as a single case study the rebuilding of St Paul's School between 1878-1884, when the school transferred from the City of London site it had occupied since the early 16th century to a site in west London. The new building, designed by Alfred Waterhouse, one of the leading architects of the 19th century, allowed it to develop from a small school providing a predominantly classical education into a large school blending a scientific and classical curriculum. Taking a microhistorical approach, I analyse the decisions taken by the school's decision-makers' about the form and function of the new building, before exploring the way the school operated in the two decades after the rebuild. The choice of Alfred Waterhouse, an architect renowned for his complex educational structures, enabled St Paul's to realise a new idea of secondary education. Not only do Waterhouse's designs demonstrate that the building was intended to provide a distinct departure from existing 'public schools', but their similarity to the university colleges Waterhouse was designing at the time, indicate their intention to embody the qualities of intellectual endeavour required to succeed in a professional age rather than the virtues of character vaunted by contemporary public boarding schools. Taken in the round, the building provided a convincing synthesis of a number of new functions, which was to become a template for English secondary schools in the early 20th century. These long-term repercussions were not anticipated in the original brief.

IMPACT STATEMENT

This thesis was prompted by conflicting assumptions expressed by 21st-century policymakers about the significance of school-building design. It extends work I began in my Masters' dissertation¹, which explored claims made for the '*Building Schools for the Future*' (BSF) programme.²

BSF, an initiative launched in 2003 by the then Labour government (2001-2005), was intended to rebuild or renew England's 3,500 maintained secondary schools. The programme focussed on '*raising standards*', and the related literature took as self-evident that '*good design*' would have a positive impact on attainment.³

In contrast, one of the first acts of the Conservative-LibDem coalition government (2010-2015), which succeeded them, was the abrupt termination of the programme.⁴ The reasons given were its (widely acknowledged) financial and bureaucratic inefficiency.⁵ Elsewhere, however, the then Secretary of State for Education, Michael Gove⁶, publicly expressed his view that school buildings were of secondary importance to academic attainment and that employing eminent architects to design them was a waste of public money.⁷

During this period, I became aware that the independent sector continued to place a high value on school buildings, and discovered that St Paul's School, one of the country's foremost academic schools, had, in 2010, launched a comprehensive, nine-year re-building programme employing award-winning architects. This continued a centuries'-old approach to infrastructure renewal.

By undertaking a microhistorical case study of the school buildings at St Paul's School, I hoped to explore this approach in greater detail. Ultimately, I focussed on the building erected in the 19th century, designed by one of the country's foremost architects, as this building offered ample scope to explore the rationale for the decisions taken about its design, and gain greater insight into how these decisions affected the education provided both at St Paul's and at schools elsewhere.

The literature on 21st-century secondary-school buildings largely omits the link between building design and outcome and little has been published relating to hiring school architects and how these architects work to briefs which balance individual school requirements and external policy.

1 Freedman, L. (2009), *Building Schools for the Future: A Necessary Investment to 'Raise Standards' or a Misconceived Programme of Party Ambition?* Unpublished MA thesis, London: Institute of Education.

2

http://webarchive.nationalarchives.gov.uk/20100208213450/http://www.partnershipsforschools.org.uk/documents/BSF_Guidance_Documents/BSF%20Introductory%20Guide%202008.pdf (downloaded 2.2.18)

³ *ibid.*

⁴ BBC <http://www.bbc.co.uk/news/10514113>

⁵ *ibid.*

⁶ <https://www.gov.uk/government/people/michael-gove>. (downloaded 25.3.2017).

⁷ *Building Design*, 3 February, 2011, <https://www.bdonline.co.uk/news/michael-gove-in-new-attack-on-award-winning-architects/5012674.article> (downloaded 18.3.17).

My research has addressed some of these omissions, and, by careful consideration of a historical case, offers useful insight into the way design can facilitate a school's functions and express its values. At a time when there is concern about how public money should be expended on school infrastructure, I would argue that similar analysis might usefully be employed on buildings erected in the wake of the Academies and BSF programmes to illuminate the objectives and outcomes of decisions taken in the creation of these buildings.

ACKNOWLEDGEMENTS

I have spent my working life as a professional journalist. Much of this time, has been employed exploring where people buy property, why they buy it, who they employ to design it and how they occupy it.

This career-long interest in the social history of architecture was undoubtedly sparked by my tutors as a history undergraduate at London University, and, far too belatedly, I would like to express my gratitude to Michael Baxandall, Sir Ernst Gombrich, Reyner Banham, Adrian Forty and Joseph Mordaunt Crook for their inspiring teaching.

My interest in education is also of long standing and, in this context, I would like to thank Ralph Lucas and Beth Noakes of *The Good Schools Guide*, who, over the past two decades, have allowed me to visit dozens of schools in the maintained and independent sectors interviewing their heads, parents and pupils about the education carried out in the school buildings they occupy.

My Masters in Comparative Education at the IOE transformed a professional interest into an academic one, and I am grateful to Andy Green and Susanne Wiborg for extending my appreciation of European and global education systems, and to Jane Martin, not only for introducing me to the history of education, but for her supervisory support in the early days of my doctorate.

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Table of Contents

Abstract	3
Impact Statement	4
Acknowledgements	6
List of Figures	13
Abbreviations	15

CHAPTER 1: INTRODUCTION AND OUTLINE OF THE THESIS

• Introduction.....	16
• Secondary Education in the 19 th Century: the Case in Context.....	20
• Research Questions	24
• Outline of the Thesis.....	26

CHAPTER 2: METHODS AND THE CASE FOR A MICROHISTORICAL INTER-DISCIPLINARY APPROACH TO THE REBUILDING OF ST PAUL'S SCHOOL, 1878-1884

• Introduction.....	29
• The Microhistorical Theoretical Framework	29
The use of the narrative form	32
A focus on the 'exceptional normal'	34
A reliance on anthropology.....	34
• Other Characteristics of Microhistory.....	35
• Microhistory's Relevance Today	36
• Why Microhistory for this Thesis?	38
• Why the Case of the St Paul's Rebuild?.....	40
Availability of sources	42
A strong case of the exceptional normal.....	42
Current relevance.....	44
• Primary Sources Employed	45
Architectural drawings, painting and photographs that relate to the St Paul's school building designed by Alfred Waterhouse and the fragment of the building still extant	47
The archival records of the Mercers' Company	51
Official schemes, reports and legislation relating to secondary schools in general and to St Paul's especially the reports and schemes of the Royal Commissions known as the Clarendon Commission (published 1864) and the Schools Inquiry Commission (published 1876, 1879).....	53
Architectural manuals, especially <i>School Architecture</i> (1874) by E.R. Robson, and <i>Modern School Buildings, Elementary and Secondary</i> (1902) by F. Clay	55

Biographies, autobiographies and memoirs, school magazines and fictional accounts	58
Contemporary newspapers and journals	63
• Conclusion	65

CHAPTER 3: THE USE OF SECONDARY LITERATURE IN A MICROHISTORICAL CASE STUDY

• Introduction	67
• Literatures	68
19 TH -century education policy	68
The role of the public schools	70
Secondary-school histories and biographies of influential figures.....	74
Literature relating to the evolution of the curriculum	79
Public examinations and 19 th -century education.....	83
School architecture and the architecture of Alfred Waterhouse, architect of St Paul's	84
Literature related to architectural patronage in the 19 th century.....	87
Literature on interior design and the materiality of schools.....	89
• Conclusion	90

CHAPTER 4: THE EDUCATIONAL AND ARCHITECTURAL BACKGROUND IN ENGLISH SECONDARY EDUCATION, 1850-1880

• Introduction	91
• Secondary-School Provision in the Mid-Century	92
The 'Great Schools'	93
Endowed 'Grammar Schools'	96
Private Schools.....	98
Proprietary Schools	99
• The Relevance of Elementary Education	100
• Key Concerns about Secondary-School Buildings in the Mid-Century	102
The perspective of the Clarendon Commissioners and Schools Inquiry Commissioners	103
The influence of Edward Thring and the Headmasters' Conference.	109
The perspective of E.R. Robson, Chief Architect of the London School Board	113
• The Emergence of the Modern School	117
The move to classrooms.....	117
The evolution of the Assembly Hall.....	121
The development of facilities for science	126
The significance of facilities for art instruction.....	130
Facilities for physical education	135
• Conclusion	140

CHAPTER 5: THE SCHEME FOR ST PAUL'S, 1876-1879: THE ROLES PLAYED BY THE ROYAL COMMISSIONS AND THE SCHOOL GOVERNORS

• Introduction	143
• The Background to the Scheme	144
St Paul's in the City and the relevance of its statutes	144
The recommendations of the Clarendon Commissioners	147
The impact of the transfer to the remit of the Endowed Schools Act	151
• The Development of the 1879 Scheme under which the New St Paul's Building was Constructed	153
The role played by the school governors	153
The influence of Roundell Palmer, 1 st Earl of Selborne, Master of the Mercers', 1876, and member of the building committee, 1877	158
• The Decisions taken about the Location of the New School by the Governors and Charity Commissioners, 1877	164
• Conclusion	169

CHAPTER 6: THE HIGH MASTER FREDERICK WILLIAM WALKER AND HIS BRIEF FOR THE NEW BUILDING, 1878

• Introduction	172
• The Contribution of Biography to the Study of Decision-Making at St Paul's	173
• The Changing Role of the Headmaster in the 19 th Century	175
• Walker's Non-Conformist Background and the Legacy of His Education ...	178
Walker at Rugby, 1845-1850: Thomas Arnold and the emergence of the 19 th -century ideal of the public boarding school.....	179
Walker at Oxford 1850-1859: a period of education reform	185
• Headship of Manchester Grammar School: Opportunities for Innovation and Reform, 1859-1876	189
Educational reform in a northern powerhouse: MGS in its context ...	189
Walker's development of middle-class education in England's foremost industrial city	193
The impact of the first new building during Walker's headship	196
Walker's development of scientific education at MGS	200
Walker's approach to sport at MGS	204
The design of the second new building constructed under Walker at MGS.....	205
• Walker: The Champion of 'Getting On', Contemporary Testimony to the Character of the Man	206
• Walker's Appointment at St Paul's and his Brief for the Design of the New Building.....	213
• Conclusion	221

CHAPTER 7: THE ARCHITECT ALFRED WATERHOUSE AND THE EVOLUTION OF THE PLAN FOR ST PAUL'S, 1878-1882

• Introduction	224
• Alfred Waterhouse: the Richard Rogers of the 19 th Century	225
Background and major works	225
Designs for education, Waterhouse's role as an innovator	229
Waterhouse and style: the marriage of form and function.....	235
Impact of patronage, professionalism and personal qualities in	
Waterhouse's career	238
Why the governors of St Paul's selected Waterhouse	241
• Architectural Decisions Taken at Other Relevant Schools	243
• Waterhouse's Designs for St Paul's: The Evolution of the Plan, 1878-1882	
.....	249
• Conclusion	258

CHAPTER 8: THE OUTCOME OF THE REBUILD, THE WAY THE BUILDING FUNCTIONED 1884-1905

• Introduction	261
• The Significance of the Building as a work of Architecture, Contemporary and Later Comment	261
• The Significance of the Plan	267
• The Chief Component Elements, their Form and Function	268
The Assembly Hall	268
The science laboratories.....	273
The art room	286
The facilities for sport.....	289
The school libraries.....	295
The classrooms	299
• Other Facilities and Design Features	301
The corridors.....	302
The dining hall	305
The High Master's study and staff rooms.....	306
The interior design	307
• The Creation of a 'Great Day School' in London	310
• Conclusion	318

CHAPTER 9: CONCLUSION

• Introduction	321
• The Research Questions Revisited	322
• The Microhistorical Analysis	328
• Areas of Future Research	332

TIMELINE FOR THE REBUILDING OF ST PAUL'S SCHOOL 1878-1884

BIBLIOGRAPHY

LIST OF FIGURES

Figure 1 Science Block, by Nicholas Hare Architects, 2013	p.363
Figure 2 Library, by Walters & Cohen Architects, 2017	p.364
Figure 3 St Paul's Hotel, formerly the High Master's house	p.365
Figure 4 Watercolour by Alfred Waterhouse of St Paul's School, 1880.....	p.365
Figure 5 Lowther Gardens, a board school in the 'Queen Anne' style, 1878, by E.R. Robson	p.366
Figure 6 Elevation and plans, Dulwich College, 1870, by Charles Barry	p.367
Figure 7-11 König Wilhelm Gymnasium, Berlin, 1865	pp.368-70
Figure 12 St Paul's School, 1824, by George Smith	p.371
Figure 13 Roundell Palmer, Lord Selborne, 1872	p.372
Figure 14 The site chosen for the school, 1878	p..373
Figure 15 Frederick William Walker as a young man	p.374
Figure 16 Manchester Grammar School, new building, 1871	p.375
Figure 17 Frederick William Walker in later years featured in <i>Vanity Fair</i>	p.376
Figure 18 The schoolroom of St Paul's School on its City site, 1876	p.377
Figure 19 Alfred Waterhouse, c.1890	p.378
Figure 20 Manchester Town Hall, by Alfred Waterhouse,1867	p.379
Figure 21 The Natural History Museum, by Alfred Waterhouse, 1870.....	p.380
Figure 22 Reading Grammar School, by Alfred Waterhouse,1868.....	p.381
Figure 23 Owens College Manchester, by Alfred Waterhouse, 1869	p.382
Figure 24 Chemistry Laboratory, Owens College, by Alfred Waterhouse.....	p.383
Figure 25 City and Guilds of London Institute, by Alfred Waterhouse, 1883	p.384
Figure 26 City of London School, by Davis and Emanuel, opened 1883.....	p.385
Figure 27 City of London School plans, by Davis and Emanuel	p.386

Figure 28 Elevation drawing of the new St Paul's school building, c.1882	p.387
Figure 29 The new school, c.1886	p.388
Figure 30 The northern front, 1880s	p.389
Figure 31 The southern front, 1880s	p.390
Figure 32 The entrance to the building, 1880s	p.391
Figure 33 Waterhouse's elevation, featured in <i>The Builder</i> , 1882	p.392
Figure 34 Waterhouse's plans, featured in <i>The Builder</i> , 1882.....	p.393
Figure 35/6 The Assembly Hall	p.394
Figure 37 The Assembly Hall, City of London School, 1882.....	p.395
Figure 38 The 'Science Side', by E.H. Shepard	p.396
Figure 39 The art room, c.1910	p.397
Figure 40 The sports field.....	p.398
Figure 41 The main school library	p.399
Figure 42 The wide corridors.....	p.400
Figure 43 Walker stalking the corridor, by E.H. Shepard.....	p.401
Figure 44 The dining hall	p.402
Figure 45/6 Decoration added in the late 1880s-1890s	p.403
Figure 47 Statue of John Colet, by Hamo Thornycroft, 1902.....	p.404

ABBREVIATIONS

BN	<i>Building News</i>
CC	Clarendon Commission
G.K.C.	G.K. Chesterton
HMC	Headmasters' Conference
ISI	Independent Schools Inspectorate
MGS	Manchester Grammar School
MM	Mercers' Minutes
RIBA	Royal Institute of British Architects
SIC	Schools Inquiry Commission, also known as the Taunton Commission and the Endowed Schools Commission

CHAPTER 1: INTRODUCTION AND OUTLINE OF THE THESIS

INTRODUCTION

This thesis is a case study of the rebuilding of St Paul's School begun in 1878 and completed in 1884. This reconstruction was a direct consequence of legislation introduced in the Public Schools Act of 1868 and the Endowed Schools Act of 1869, which also led to either the relocation and rebuilding or extension of most secondary schools in England.

Today, St Paul's School, located in south-west London, is one of England's highest-performing schools.¹ Now an independent, fee-paying day² school for 1406 boys³ aged from 7⁴ to 18,⁵ it has remained in the forefront of English education since its foundation in c.1509, and is currently one of five schools which collectively send more pupils to Oxbridge than 1800 comprehensives combined.⁶ Its school buildings have been entirely reconstructed five times on three different sites, and, in 2010, it

¹ St Paul's School website, <http://www.stpaulsschool.org.uk/st-pauls/academic/exam-results> (downloaded 3.6.17). In summer 2016, 45.1 per cent of A Levels and Pre-Us were graded A* (or equivalent), 84.9 per cent were graded A*-A (or equivalent). This performance is consistent over a five-year period; <https://www.tes.com/news/school-news/breaking-news/top-schools-and-colleges-tightening-grip-oxbridge-places> (downloaded 2.2.17).

² There are also 20 boarders in the sixth form.

³ ISI inspection report, 2017, <https://www.isi.net/school/st-paul-s-school-7036> (downloaded 17.2.18).

⁴ <https://www.stpaulsschool.org.uk/st-pauls-juniors>. St Paul's has a junior school on the same site, which educates boys between the ages of 7-13.

⁵ McDonnell, M.F.J. (1909), pp.58-68. *A History of St Paul's School*, London: Chapman and Hall. The school was originally constructed some time between 1508 and 1511 next to St Paul's Cathedral.

⁶ <http://www.stpaulsschool.org.uk/assets/img/banners/Copy-of-Annual-Prospectus-2016-Updated-for-website.pdf> (downloaded 17.2.17). In 2016, of 184 Year 13 students, 21 received offers from Cambridge, 20 from Oxford, with a further 28 going on to leading universities in North America, including Yale (3), Harvard (2), Stanford (1).

embarked on the first stage of a nine-year plan to replace its existing 1960s buildings at an intended cost of £112m.⁷

As Gary McCulloch suggests historical voices are of value in current debates and educational history can illuminate both the past and the present.⁸ The decision to write this thesis stems from my interest in throwing light on the views expressed by 21st-century policymakers about the significance of school-building design. My doctoral thesis extends work I began in my Masters' dissertation,⁹ in which I explored claims made for the role of building design in the '*Building Schools for the Future*' programme.¹⁰

Recent education policy has made explicit conflicting assumptions about the impact of school design. In 2003, the Labour government (2001-2005) launched a large-scale initiative to rebuild or renew all of England's 3,500 maintained secondary schools.¹¹ This programme, '*Building Schools for the Future*' (BSF), was described as 'the largest single capital investment in English schools for 50 years', and its intention was: 'to transform our secondary schools into innovative learning environments that will inspire pupils to achieve more'.¹² As with much Labour

⁷ <https://www.stpaulsschool.org.uk/about/renewal-campaign/general-teaching-building> (downloaded 2.2.18).

⁸ McCulloch, G. (2011), p.70, *The Struggle for the History of Education*, London and New York: Routledge Taylor & Francis Group.

⁹ Freedman (2009).

¹⁰

http://webarchive.nationalarchives.gov.uk/20100208213450/http://www.partnershipsforschools.org.uk/documents/BSF_Guidance_Documents/BSF%20Introductory%20Guide%202008.pdf (downloaded 2.2.18).

¹¹

<http://webarchive.nationalarchives.gov.uk/20111122053934/https://www.education.gov.uk/publications/eOrderingDownload/DfES%20218%20200MIG467.pdf> (downloaded 23.6.2018).

¹² DfES (2004), p.1. *Schools for the Future, Exemplar Designs, concepts and ideas*.

education policy of the period, the initiative was focussed on ‘*raising standards*’,¹³ and the programme literature took as self-evident that ‘*good design*’ would have a positive impact on academic attainment.¹⁴

In contrast to Labour’s stance, one of the first acts of the Conservative-LibDem coalition government (2010-2015), which succeeded them, was the abrupt termination of the programme.¹⁵ The reasons given were its (widely acknowledged) financial and bureaucratic inefficiency.¹⁶ Elsewhere, however, the then Secretary of State for Education, Michael Gove¹⁷ declared the view that school buildings were of secondary importance to academic attainment and that employing eminent architects to create school buildings was a waste of public money. (‘And we won’t be getting Richard Rogers to design your school, we won’t be getting any award-winning architects to design it, because no one in this room is here to make architects richer.’)¹⁸

The current approach taken at St Paul’s diverges significantly from this standpoint. Here, its nine-year reconstruction has been carefully planned by leading architectural practitioners,¹⁹ and significant sums have been expended addressing current and

¹³ DfES (2003), p.12, p.24. *Building Schools for the Future, Consultation on a New Approach to Capital Investment*. ‘Good design raises educational standards and improves the quality of life within a school.’

¹⁴ *ibid.* ‘We want to promote better design, based on the designs which are shown to have the most positive effects on pupil achievement.’

¹⁵ BBC, <http://www.bbc.co.uk/news/10514113> (downloaded 13.9.2018).

¹⁶ *ibid.*

¹⁷ <https://www.gov.uk/government/people/michael-gove> (downloaded 25.3.2017). Michael Gove served as Secretary of State for Education between May 2010 and July 2014.

¹⁸ *Building Design*, 3 February, 2011, <https://www.bdonline.co.uk/news/michael-gove-in-new-attack-on-award-winning-architects/5012674.article> (downloaded 18.3.17). These remarks were made at a Free Schools conference.

¹⁹ <http://www.pateltaylor.co.uk/works/architecture/education-and-culture/st-pauls-school> (downloaded 17.2.17). The masterplan is by Pankaj Patel and Andrew Taylor, who are directors of CABE’s national design review committee. <https://www.stpaulsschool.org.uk/about/renewal-campaign/new-science-building> (downloaded 17.2.18). The first phase of the development by Nicholas Hare Architects, completed in 2013,

future educational needs. It was this careful approach to infrastructure, consistent throughout the school's 500-year history, which initially attracted my attention, and at the outset of my research I considered exploring all six incarnations of the school's buildings.²⁰ Ultimately, however, I decided to focus on the re-siting and reconstruction of the school in the late 19th century.

As Ludmilla Jordanova points out, a single building can provide evidence that 'can be brought to bear on a striking array of historical problems',²¹ and, here I considered the rebuild illuminating for a number of reasons. Firstly, it was the only St Paul's building to have been directly affected by government intervention.²² Secondly, this reconstruction occurred at a pivotal point in the development of English secondary education, when legislation about curricula led to the need for radical new forms of accommodation. Thirdly, the architect of this building was Alfred Waterhouse, one of the most celebrated architects of the period. Finally, this rebuild offered unusually ample documentary resources.

This thesis will, therefore, explore the rationale and history of the rebuilding of St Paul's in the late 1870s and early 1880s. It will trace its roots in mid-century legislation and contemporary debate about new forms of school building, before

included a flagship science block (**FIGURE 1**), which was awarded an RIBA London Award in 2015. The second phase, completed in 2017, by award-winning architectural firm Walters & Cohen Architects, provided 28 classrooms, a library (**FIGURE 2**), two seminar rooms, a rare books room and a dining hall.

²⁰ Mead, A.H. (1990), pp.36-7, p.54, p.120, *A Miraculous Draught of Fishes*, London: James & James. The first building was destroyed in the Great Fire of London and rebuilt on the same site in 1671, as was the third building, completed in 1824. The fourth building, the subject of this thesis, was constructed on a new site in 'West Kensington', and the school moved into new buildings on its current site in Barnes in 1968.

²¹ Jordanova, L. (2012/2016), p.48, *The Look of the Past, Visual and Material Evidence in Historical Practice*, Cambridge: Cambridge University Press.

²² By the time of the 1960s rebuild, St Paul's was an independent school, and therefore free of most government intervention, as it had been prior to the 1878 rebuild.

following each phase of the design process. Finally, it will explore the impact of the Waterhouse-designed building both on the education provided at St Paul's and on secondary schools elsewhere.

SECONDARY EDUCATION IN THE 19TH CENTURY: PUTTING THE CASE IN CONTEXT

Established with a lavish benefaction from John Colet, Dean of St Paul's Cathedral, in the early sixteenth century,²³ St Paul's was, during the period under investigation, considered one of England's 'Great Schools', an 'endowed'²⁴ 'public'²⁵ school with a national reputation. In the 1870s, it remained on its original site adjoining St Paul's Cathedral, where it continued to educate the same number of pupils stipulated in Colet's statutes of 1518.²⁶ At this juncture, too, it largely maintained the exclusively 'classical' education dictated by its founder.²⁷ As will be shown, the decision to rebuild the school involved a move to a new site in a semi-rural suburb, and allowed for a larger building capable of housing a much greater number of pupils and a considerably expanded curriculum.

The 19th century is often considered to be a period in which the English state under successive governments showed reluctance to take responsibility for secondary education.²⁸ Nonetheless, as this thesis will demonstrate, the removal and rebuilding of St Paul's School was a direct result of government diktats (relating to the

²³ McDonnell (1909), pp.13-32.

²⁴ See Ch.4, pp.94-6.

²⁵ See p.22 *below*.

²⁶ Mead (1990), p.69. i.e.153.

²⁷ *ibid.*, p.71.

²⁸ Green, A. (1990), p.287, *Education and State Formation, The Rise of Education Systems in England, France and the US*, London: Macmillan Press.

distribution and siting of secondary-school buildings, health and safety and curriculum content), which, in turn, reflected a growing awareness of the need for England to have a better-educated and better-qualified middle class.

This thesis has concentrated on what today is termed 'secondary education', although in the 19th century there are certain problems with this designation. At the time, 'secondary education' was understood, as it is now, as a period of schooling 'coming between elementary instruction, the instruction in the mother tongue and in the simplest and indispensable branches of knowledge on the one hand, and superior instruction, the instruction given by the universities, on the other'.²⁹ This stage of education, however, was then more commonly defined in terms of class, generally referred to as 'middle-class' education to distinguish it from the education provided free for the poor in 'elementary schools'.

The term 'middle class', however, is in many ways equally problematic. Late Victorian society was made up of differentiated, but overlapping, groups, which excluded all but the poor and the aristocracy. This thesis will, therefore, rely on the categorisation of schools outlined by the Schools Inquiry Commission (hereafter, the SIC) in the report prepared prior to the Endowed Schools Act (1869). This report³⁰ subdivided secondary education into three distinct 'grades' of school (First,³¹

²⁹ Arnold, M. (1864), pp.8-9, *A French Eton, or Middle Class Education and the State*, London and Cambridge: Macmillan & Co.

³⁰ Maclure, J.S. (1965/1986), p.92, *Educational Documents, England and Wales 1816 to The Present Day*, London and New York: Methuen and Co, *The Report of the Taunton Commission* (Ch.7, p.587.)

³¹ Simon, B. (1960/1966), p.109, *Studies in the History of Education 1780-1870*, London: Lawrence & Wishart. Proprietary boarding schools (e.g., Haileybury, Malvern and Clifton), as well as certain grammar schools, came into this category.

Second³² and Third³³) according to the age at which a boy would normally leave full-time education (18/19, 16, 14 respectively), reflecting the line of work he would be likely to pursue.³⁴ Under this system of categorisation, St Paul's was defined as a 'First-Grade' school, i.e. a school where pupils could remain until the age of 19 before transferring to tertiary education and, from there, to professional work.

A further peculiarity of the period is that there was not always a clear-cut distinction between secondary and tertiary education, notably in relationship to institutions of higher education outside of Oxford and Cambridge.³⁵ Though the demarcation becomes sharper during the final quarter of the century, this ambiguity is relevant in terms of the approach to the new building erected at St Paul's, where an architect celebrated for his work at the new universities was considered an appropriate choice.

Finally, in the context of this thesis, there are significant issues surrounding the term 'public school'. Education historians of the late 19th century have focussed considerable attention on this relatively small sub-group of secondary schools. Prior to the Public Schools Act of 1868 the term had a reasonably precise definition³⁶ and,

³² *ibid.*, p.324. These were to be day schools in towns with a population of over 5,000, which would prepare for the medical and legal professions, the civil service, civil engineering, business and commercial life. It was envisaged these would be patronised largely by the mercantile and trading classes.

³³ *ibid.*, p.324. These were intended for a 'class distinctly lower in the scale', including smaller tenant farmers, small tradesmen and superior artisans.

³⁴ *ibid.* Vol.1, pp.576-8.

³⁵ See Ch.2, p.57, n.130.

³⁶ Coleridge, J.T. (1860), p.13, *Public School Education*, London: John Murray. The Rt. Hon. Sir John Taylor Coleridge, an eminent judge, gave a definition in a lecture of 1860. The words 'public school', he said, derived from the fact that the school's '*continued existence must not depend on the will of any individual, or number of persons associated together for the time being, nor on the popularity of any teacher or teachers; it must be public in its character, it must have something eleemosynary in its constitution. Children who satisfy certain conditions of parentage, or birth, or fortune, or other qualifications, must have an inchoate right to be admitted. It ought to have public buildings, and it usually, if not necessarily, is connected by endowment with one or both of our great Universities.*'

in the wake of the Act, acquired a further specific legal force.³⁷ Over the course of the final quarter of the 19th century, however, the term was extended to a far wider range of schools, considered by historians to possess a number of common features, which played an important role in the development of an elite.

St Paul's was one of nine schools originally included in the investigations of the Clarendon Commissioners, who prepared the report leading to the Public Schools Act.³⁸ Later, for legal reasons specific to the school,³⁹ it was excluded from the Act and was transferred instead to the jurisdiction of the commissioners responsible for implementing the Endowed Schools Act.⁴⁰ While its status as a public school remained unambiguous, this transfer is relevant both to the building constructed and the education provided within it. These issues are addressed within the scope of the thesis.

RESEARCH QUESTIONS

This thesis contributes to the historical literature on the role architecture plays in education by taking as its case study the rebuilding of St Paul's School between 1878-1884. Existing histories addressing 19th-century secondary-school architecture

³⁷ Shroobree, C. (1988), p.14, *Public Schools and Private Education, The Clarendon Commission, 1861-1864 and the Public Schools Acts*, Manchester: Manchester University Press. The Public Schools Act, 1868, and the further Public Schools Acts of the following years formally recognised the claims of the seven schools included in the Act to a superior, distinct status, giving them a separate legal title, and endorsing a hierarchical structure of secondary education.

³⁸ *Report of Her Majesty's Commissioners appointed to inquire into the revenues and management of certain colleges and schools and the studies pursued and instruction given therein* (hereafter referred to as CC, for Clarendon Commission) (1864) HMSO; Mead (1990), pp.68-70.

³⁹ See Ch.5, p.150, n.48.

⁴⁰ Mead (1990), pp.70-72.

have largely concentrated on the design of the boarding public schools. These studies have explored the link between the distinctive architecture of these schools and their educational mission conceived by contemporaries in terms of developing social and moral qualities (character building, leadership, esprit de corps, etc.) over academic ones. In doing so, they have illuminated the role of these schools in perpetuating class privilege and the entitlement of a social elite.

Only limited attention has been paid, on the other hand, to a parallel burgeoning of prestigious urban day schools, also defined by contemporaries as public schools. These schools, intended to provide an intellectually rigorous education to a growing professional middle class, employed high-status architects and expended large sums on creating complex new structures. By this means, they created an alternative public-school typology, which not only defined a new environment for the education of the 'metropolitan intellectual elite', but ultimately acted as a model for secondary-school buildings as the responsibility for these was taken over by the state in the wake of the Balfour Education Act (1902). By focussing on the rebuilding of St Paul's School, between 1878 and 1884, this thesis will address that gap.

This thesis also addresses the concern that little has been published in the history of education relating to the approach taken to hiring secondary-school architects. While some studies have investigated the influence of key figures such as E.R. Robson in defining a template for primary education,⁴¹ far less attention has been paid to the

⁴¹ Seaborne, M. and Lowe, R. (1977) *The English School, Its Architecture and Organisation, Vol. 11, 1870-1970*, London, Henley, Boston: Routledge & Kegan Paul; Burke, C. and Grosvenor, I. (2008), *School*, London Burke, C. and Grosvenor, I. (2013), pp.201-220, *An Exploration of the Writing and Reading of a Life: The 'Body Parts' of the Victorian School Architect E.R. Robson in Rethinking the History of Education, Transnational Perspectives on its Questions, Methods and Knowledge*, Popekiwitz, T.S. (ed.), New York: Palgrave Macmillan.

influential figures helping to shape secondary-school design in the late 19th century, and how these architects worked to briefs which balanced individual school requirements with a broader range of social and cultural factors influencing contemporary understanding of education's role and purpose.

To address these absences, this case study of the rebuilding of St Paul's School between 1878-1884 was framed by the following research questions:

1. Who were the key decision-makers in the design of the new building and what role did each play in the design process?
2. How did the key decision makers develop an effective brief to ensure that the new building met appropriate needs?
3. What role did the choice of architect play in determining the final outcome?
4. How was the resultant school building viewed by those that used it and by the wider community?

OUTLINE OF THE THESIS

The thesis is organised as follows:

Chapter 1: Introduction and outline of the thesis

In this chapter, I provide the reason for my interest in the rebuilding of St Paul's School between 1878-1884, detail my research questions, and provide an outline of the thesis.

Chapter 2: Methods and the Case for a Microhistorical, Inter-Disciplinary Approach to the Rebuilding of St Paul's School, 1878-1884

In this chapter, I outline the methodology selected and give reasons why I have adopted a microhistorical, inter-disciplinary approach to study the rebuilding of St Paul's School between 1878 and 1884. I then turn to why I chose St Paul's School as a case study, before providing an analysis of the primary sources, which support this choice.

Chapter 3: The Use of Secondary Literature in a Microhistorical Case Study

To set my microhistorical case study in context and more fully understand the decisions taken at St. Paul's, in this chapter I consider a range of secondary literature.

Chapter 4: The Educational and Architectural Background in English Secondary Education, 1850-1880

In this chapter, I chart the architectural and educational context in which St Paul's was rebuilt, examining contemporary debate about school administration, curriculum development and school-building design. Here, I identify leading protagonists in the debate and key themes as they relate to the style, planning and siting of the new school buildings.

Chapter 5: The Scheme for St Paul's 1876-9, the Roles played by the Royal Commissions and the School Governors

In this chapter, I analyse the evolution of the official scheme under which St Paul's School was relocated and rebuilt between 1878 and 1884, allowing it to develop from a small, non-selective, fully-maintained school with a narrow curriculum and moderate academic outcome into a large, selective, partially fee-paying school with a

much broader curriculum and outstanding academic outcome. I explore the role played by the two Royal Commissions involved in investigating the school and developing the scheme, and the background and outlook of the school governors, who played an equally significant part in defining the terms of the scheme and were primarily responsible for managing the detail of the rebuild. I conclude this chapter by charting the decisions taken about the site in light of the new scheme.

Chapter 6: The High Master, Frederick William Walker and his Brief for the New School Building, 1878

In this chapter, I consider the role played by Frederick William Walker, High Master of St Paul's (1877-1905), in shaping the rebuild. To understand the perspective from which Walker acted, I undertake a biographical history relating to his experience of education, investigating, in turn, his time at Rugby School and Oxford University in the mid-century and his lengthy headship of Manchester Grammar School immediately prior to his arrival at St Paul's. I end this chapter with a detailed analysis of the brief Walker drew up at the governors' request, which acted as the basis for their instructions to the architect.

Chapter 7: The Architect, Alfred Waterhouse and the Designs for the New school building, 1878-1882

In this chapter, I analyse the career of Alfred Waterhouse, the architect selected to rebuild St Paul's. In order to understand the rationale for his appointment and the qualities he brought to the design of the new building, I briefly explore Waterhouse's background, education and the works which brought him public recognition, before turning to the educational buildings he was responsible for throughout his lengthy and prolific career, concentrating particularly on his work in higher education. To

contextualise the design decisions taken at St Paul's, I then look at architectural decisions taken at comparable schools during the period of the rebuild, concluding the chapter by addressing the evolution of Waterhouse's plans for St Paul's.

Chapter 8: The Outcome of the Rebuild, the Way the Building Operated 1884-1905

In the final data chapter, I focus on the critical reception of the new building and the use that was made of it in the period immediately following its construction, relying on contemporary reflections from the press, pupils and teachers. Here, I also reflect on the influence the building had in the wider context of school design, stressing the influential role it played in the developing idea of the secondary day school.

CHAPTER 2: METHODS AND THE CASE FOR A MICROHISTORICAL, INTER-DISCIPLINARY APPROACH TO THE REBUILDING OF ST PAUL'S SCHOOL, 1878-1884

INTRODUCTION

In this thesis, I have used a qualitative approach, combining educational history and architectural history to explore a single school building, St Paul's School in London's West Kensington, designed by the celebrated Victorian architect Alfred Waterhouse and built between 1878 and 1884. I have examined the history of the building through its social, cultural and political milieu, and have studied how the creation of this building related to contemporary education theory, design theory, social class

and government education policy in order to explore the decisions taken by the main decision-makers and the educational impact of the completed building.

THE MICROHISTORICAL THEORETICAL FRAMEWORK

I have chosen to interrogate these concerns through a microhistorical framework as the microhistorical framework is one particularly compatible with the study of architectural history, a field which has characteristically used the small-scale study (the monograph) as a vehicle for the detailed analysis of individual artists and buildings,¹ and has increasingly recognised the relationship of buildings to the society in which they were produced.²

The term 'microhistory' (*microstoria*) was first given expression in the 1970s by a small group of Italian historians³ (amongst the most prominent of whom were Carlo Ginzburg,⁴ Giovanni Levi, and Edoardo Grendi). These historians placed their emphasis on small units and how people conducted their lives within them, arguing that, by reducing the scale of observation, they were more likely to reveal the

¹ Tosh, J. (2015, sixth edition), pp.207-8. *The Pursuit of History, Aims, Methods and New Directions in the Study of History*, Abingdon: Routledge. From the 1930s, art historians started to examine works of art in relation to the intellectual world in which they were commissioned and created. More recently, socialist scholars have argued that binding artists to the dominant structures of society is crucial to understanding their work.

² Watkin, D. (1980), p.183, *The Rise of Architectural History*, London: The Architectural Press Ltd.

³ Burke, P. (2004/2017), p.44. *What is Cultural History?* Cambridge: Polity. A parallel movement in Germany was represented by Hans Medick.

⁴ Carlo Ginzburg's *The Cheese and the Worms: the Cosmos of a 16th Century Miller* (*Il formaggio e i vermi*, 1976, Giulio Einaudi Editore, tr. Tedeschi, A. and Tedeschi, J., first published in English in 1980 by Baltimore: John Hopkins Press) brought microhistory to public attention. Ginzburg delivered his criticism of prevailing methods in articles in the Italian journal *Quaderni Storici*, the German journal *Historische Anthropologie*, the English journal *Critical Inquiry*, and elsewhere. Brown, R.D. (2003), 'Microhistory and the Post-Modern Challenge', *Journal of the Early Republic*, Vol.23, No.1 (Spring 2003), p.11, University of Pennsylvania Press on behalf of the Society for Historians of the Early American Republic. Brown suggests that the approach pre-dates the label.

complicated function of individual relationships within each social setting, stressing its difference from larger norms.

Microhistory lies within the broader sweep of the 'New History',⁵ historiography which originated in a widespread disillusionment with the economic, determinist model of historical explanation,⁶ in particular the perceived failings of the analytic mode of Marxist ideology and social-science methodology, which held that 'scientific' history could produce generalised laws to explain historical change.⁷ As Lawrence Stone trenchantly claimed in his celebrated essay of 1979 *The Revival of Narrative: Reflections on a New Old History*: 'The macro-economic model is a pipe-dream, and "scientific history" a myth. Monocausal explanations simply do not work.'⁸

'Scientific' historians were interested in societies not individuals and largely regarded intellectual, cultural, religious, psychological, legal and even political developments as peripheral.⁹ The New History, on the other hand, held that: 'the culture of the group, and even the will of the individual, are potentially at least as important causal

⁵ Burke, P. (1991/1992), pp.3-6. *Overture: The New History, its Past and its Future* in *New Perspectives on Historical Writing*, Cambridge: Polity Press. Peter Burke summarises the 'New History' as distinguished by: a move away from politics and the state to a concern with 'virtually every human activity'; the belief that reality is socially and culturally constituted; a transition from historical analysis which viewed history 'from above' (expressed in its preoccupation with the 'great deeds of great men') to 'history from below', i.e. the history of ordinary people; the expansion of a permissible range of evidence from a tight focus on documentary evidence to include the visual, oral, etc.; a broader range of historical questions; and the realisation that there are limits to the degree to which history can be objective.

⁶ Stone, L. (Nov. 1979), p.5, p.12, p.13. '*The Revival of Narrative: Reflections on a New Old History*', in *Past & Present*, No. 85, Oxford: Oxford University Press on behalf of The Past and Present Society. Stone identified three strands in 'scientific history': the Marxist economic model; the French ecological/demographic model and the quantitative American 'cliometric' methodology (which tested the world by mathematical formulae), specifying their failings as 'unverifiable methodology', the narrow range of historical questions that could be addressed ('a lot about the "what" questions... relatively little ...about the "why"') and 'that the variables are so numerous that at best only middle-range generalizations are possible'.

⁷ Ginzburg, C. (1979), '*Roots of A Scientific Paradigm*', *Theory and Society*, vii.

⁸ Stone (1979), p.13.

⁹ *ibid.*, p.7.

agents of change as the impersonal forces of material output and demographic growth', contending that: 'there is no theoretical reason why the latter should always dictate the former rather than vice versa'.¹⁰

Practitioners of the New History moved the central issue of history from 'the circumstances surrounding man', to 'man in circumstances',¹¹ and this transition was, as Lawrence Stone noted, accompanied by a 'broad cluster of changes in the nature of historical discourse'.¹²

As far as this study is concerned, the salient characteristics of these alterations are:

The use of the narrative form

One consequence of the shift in emphasis was, as Stone argued, the revival of '*narrative*' history, which he defined as: 'the organisation of material in a chronologically sequential order and the focusing of the content into a single coherent story, albeit with sub-plots'.¹³ The fundamental difference between this form of history and structural history being that: 'its arrangement is descriptive rather than analytical and that its central focus is on man not circumstances. It therefore deals with the particular and specific rather than the collective and statistical'.¹⁴ Narrative

¹⁰ *ibid.*, p.9.

¹¹ *ibid.*, p.23.

¹² *ibid.*, pp.23-4. 'from the economic and demographic to the cultural and emotional; in the prime sources of influence, from sociology, economics and demography to anthropology and psychology; in the subject matter, from the group to the individual; in the explanatory models of historical change, from the stratified and mono-causal to the interconnected and multi-causal; in the methodology, from group quantification to individual example; in the organisation, from the analytical to the descriptive; and in the conceptualization of the historian's function, from the scientific to the literary.'

¹³ *ibid.*, pp.3-4.

¹⁴ *ibid.*

history as it developed in New Historical writing differs from the antiquarian or annalist tradition in that the narrative possesses a theme and an argument, and is 'concerned with the rhetorical aspects of... presentation'.¹⁵

Stone countered the 'scientific' historical viewpoint that 'narrative is by definition not scholarly'¹⁶ by emphasising that historical analysis remained as essential to the New History's methodology as description, and that historians used new sources of evidence to tell a story, 'not for its own sake, but in order to throw light upon the internal workings of a past culture and society'.¹⁷ Difficulties, he argued, only arose if the narrator did not have sufficient insight into the broader social, economic and cultural context to provide a plausible explanation of the narrative.

The narrative form, however, came under attack from another direction with Hayden White's assertion that, because history assumes a narrative form, it shares the qualities of literary texts and is, therefore, essentially a fiction-making operation.¹⁸ This challenge, too, has since been vigorously countered by numerous historians¹⁹ in a perspective expressed by French historian Roger Chartier that 'even if the historian writes in a "literary" manner he does not produce literature'.²⁰ This summarises the view that, while the historian's sources do not present themselves in

¹⁵ *ibid.*, p.4.

¹⁶ *ibid.*, p.16.

¹⁷ *ibid.*, p.19.

¹⁸ White, H. (1973/2014), *Metahistory, The Historical Imagination in 19th-Century Europe*, Baltimore: John Hopkins University Press.

¹⁹ Evans, R.J. (1997), *In Defence of History*, London: Granta Books; Iggers, G.G. (1997), *Historiography in the Twentieth Century, From Scientific Objectivity to the Postmodern Challenge*, Hanover NH: Wesleyan University Press; Brown (2003), amongst others.

²⁰ Chartier, R., 'Le Temps des Doutes', *Le Monde*, March 18, 1993.

an unambiguous form and may be subject to forgery and falsification, he or she, nonetheless, operates within a notion of truth, however complex and incomplete.

A focus on the 'exceptional normal'

Early microhistorians laid particular emphasis on 'recapturing the experiences ... of those who were overlooked by previous generation of historians'²¹ (the poor, women, etc.) and the case studies these historians focused on were defined by Edoardo Grendi as 'the exceptional normal'.²² The choice of these cases (in statistical terminology, 'deviant' or 'extreme' cases) were intended to act as a counterbalance to quantitative methodology's emphasis on the norm, for, as Carlo Ginzburg stated 'a truly exceptional...document can be more revealing than a thousand stereotypical documents'.²³ By placing an emphasis on the obscure,²⁴ strange or dangerous, microhistorians were able to use empirical and archival evidence to test and refine standard generalisations and partially-informed assumptions and to detail the multiple contexts in which decisions were taken.

A reliance on anthropology

²¹ Frederickson, G.M., 'Wise Man', *New York Review of Books*, February 28TH, 2002, p.37.

²² Grendi, E. (1972), pp.506-20, 'Microanalisi e storia sociale' in *Quaderni Storici* 7, and Polanyi: Dall' antropologia economica alla microanalisi storica (1978), Milan.

²³ Ginzburg, C. and Poni, C. (1991), p.8, 'The Name and the Game: Unequal Exchange and the Historiographic Marketplace', in *Microhistory and the Lost Peoples of Europe*, eds. Muir, E. and Ruggiero, G. tr. Branch, E. Baltimore: John Hopkins University Press.

²⁴ *The Cheese and the Worms*, for example, focused on a miller interrogated under suspicion of heresy.

'Scientific' history largely relied for its interpretative weight on sociological and economic theory; microhistory, on the other hand, has much closer ties with the methodology of anthropology,²⁵ specifically with the 'extended case study' developed by Max Gluckman and others in the 1940s,²⁶ and with the 'thick description'²⁷ pioneered by Clifford Geertz,²⁸ which highlighted 'how a whole social system and set of values can be brilliantly illuminated by the searchlight method of recording in elaborate detail a single event, provided that it is very carefully set in its total context and very carefully analysed for its cultural meaning'.²⁹

Like ethnographers, microhistorians explore variations in patterns of behaviour, using 'human agency' as a means of answering the larger questions of history. Where microhistorians, however, diverge from Geertz again lies in their contention that the borderline between fact and fiction is amorphous.³⁰ For microhistorians, case studies must be determined by physically real evidence.

OTHER CHARACTERISTICS OF MICROHISTORY

Georg Iggers³¹ argues that, while microhistory abandoned a raft of assumptions inherent in 'scientific history', it also retained some of its significant features - features which have also been taken as givens in this thesis. Amongst these are: the

²⁵ Stone (1979), p.13.

²⁶ Burke, P. (2005/2009), p.40, *History and Social Theory*, Cambridge: Polity.

²⁷ Levi (1991, paperback 1992), p.98; Geertz, C. (1973), pp.3-31, *Thick Description: Toward an Interpretive Theory of Culture* in *The Interpretations of Culture*, New York: Basic Books.

²⁸ Geertz, C. (1973), *Deep Play: Notes on the Balinese Cock Fight* in *Interpretations of Cultures*, New York. Clifford Geertz's account of a Balinese cock fight is considered the archetypal model of 'thick description'.

²⁹ Stone (1979), pp.13-14.

³⁰ Iggers (1997), p.108.

³¹ *ibid.*

belief that social inequality is a central characteristic of all historic societies; that production and reproduction play a critical role in the formation of cultures; that economic factors, while not the primary explanation of historic change, are nonetheless relevant to it; and finally, the view that historical study deals with real subject matter and must be based on rigorous method and empirical analysis. As Iggers states: 'Their (i.e. microhistorians) criticism of traditional social-science approaches is not that social science is not possible or desirable, but that social scientists have made generalizations that do not hold up when tested against the concrete reality of the small-scale life they claim to explain'.³²

MICROHISTORY'S RELEVANCE TODAY

Since its inception, microhistorical historiography, even when not consciously applied, has been widely employed by scholars wishing to focus on thorough, interpersonal transactions and social processes tightly focused in time and place, where analysis is reliant on multi-dimensional contextualisation.³³ The methodology has developed in a number of ways, with some scholars concentrating 'on the exhaustive investigation of a particular locality over an extended period of time';³⁴ while others have undertaken intensive community analyses to illuminate and explain particular events.³⁵ The unifying principle of all microhistorical research, however, remains the one stated by Giovanni Levi, i.e. that: 'microscopic observation will reveal factors previously unobserved' and that 'by altering the scale of

³² *ibid.*

³³ Brown (2003), p.12.

³⁴ *ibid.*, p.10.

³⁵ *ibid.*, p.11.

observation...new meanings will emerge',³⁶ allowing researchers 'to draw far wider generalisations although the initial observations were made within relatively narrow dimensions and as experiments rather than examples'.³⁷ Essentially, for the model to have force, it must go beyond a critique to create a broader understanding.

Since the 1990s, historians have become embroiled in a further battle about the nature of history, in which the more radical claims of post-modernism, the linguistic turn and cultural relativism have raised doubts about whether history, whose sources are so subjective in creation and deployment, so haphazard in survival, and so contingent on the bias of reader and author, can truly represent reality in the past. The suggestion has been that history is at best a signpost to the reality the author perceives and at worst a work of fiction.³⁸

In answer to this challenge, Richard Brown has suggested that microhistory, which is less selective in its choice of sources and puts greater emphasis on placing evidence in a contemporary context, is a particularly effective tool,³⁹ making history less open to criticism of subjectivity by bringing a detailed account of evidence to its claims.⁴⁰

By exploring a finite subject exhaustively (though not definitively), the microhistorian commands the evidence on that subject beyond challenge; so, within that topic, the reader learns to accept her or his authority. From this

³⁶ Levi (1991/1992), p.97.

³⁷ *ibid.*, p.98.

³⁸ Brown (2003), p.3.

³⁹ *ibid.*, p.20.

⁴⁰ *ibid.*, p.17. Since microhistorians' '... assertions, grounded as they are in a profound, multi-faceted, even holistic, grasp of a fragment of historical experience, cannot be dismissed easily as fictions...'

laboriously earned position of authority and trust the microhistorian is positioned to assert broader interpretative statements.⁴¹

Microhistory, he argues, allows historians to achieve what Appleby, Hunt and Jacob⁴² describe as 'qualified objectivity', an objectivity that, while acknowledging the 'undeniable elements of subjectivity, artificiality and language dependence' of all historical writing, still has legitimacy.

While admitting that microhistorians cannot stand outside of time, and that every representation of reality can only be a representation, Brown argues such empirical research into a 'landscape cluttered with the detritus of past living'⁴³ makes the claim of truth more persuasive. Though Brown was writing in 2003, when he considered 'post-modern criticism a passing fashion',⁴⁴ microhistory remains an equally pertinent defence against today's culture of misinformation and an environment defined by the 'infectious spread of pernicious relativism disguised as legitimate scepticism'.⁴⁵

WHY MICROHISTORY FOR THIS THESIS

The high financial cost of any building means, as Andrew Ballantyne notes, that the 'buildings that are actually built tell us a good deal about the value system of the society that produced them... Their cost is nearly always significant for the person

⁴¹ *ibid.*, p.16.

⁴² Appleby, J., Hunt, L., and Jacob, M. (1994), p.259, *Telling the Truth about History*, New York; W.W. Norton & Company.

⁴³ *ibid.*, p.4.

⁴⁴ *ibid.*, p.9.

⁴⁵ D'Ancona, M. (2017), p.2., *Post Truth, the New War on Truth and How to Fight Back*, London: Ebury Press.

who commissions them, so they are very rarely frivolous'.⁴⁶ Using buildings, both individually and collectively, to explore these values is now widespread, notably in the field of 'the social history of architecture'.⁴⁷ This tradition is well represented by the work of scholars such as Mark Girouard, J. Mordaunt Crook, and William Whyte, who have examined the intellectual and social networks involved in producing high-status buildings, such as country houses,⁴⁸ gentlemen's clubs,⁴⁹ and universities,⁵⁰ and have explored not only the production of buildings, but the way in which they are used and reused, reinterpreted and reshaped by those who inhabit them.⁵¹

A similar approach has been taken in the rapidly expanding field of material culture studies.⁵² In part the province of archaeologists,⁵³ but also drawing on cultural studies more broadly, this tradition has focused on the history of consumption and explored the function of space as a means to read the 'text' of a building.⁵⁴

⁴⁶ Ballantyne, A. (2006), p.37. 'Architecture as Evidence' in *Rethinking Architectural Historiography*, eds. Dana Arnold, D., Altan Egut, E., and Turan Ozkaya, B., London and New York: Routledge.

⁴⁷ Crook, J.M. (1999), p.2, *The Rise of the Nouveaux Riches*, London: John Murray.

⁴⁸ Girouard, M. (1971), *The Victorian Country House*, London: Oxford University Press; Girouard, M. (1977), *Sweetness and Light, 'the Queen Anne' Movement, 1860-1900*, Oxford: Oxford University Press; Girouard, M. (1978), *Life in The English Country House, A Social and Architectural History*, New Haven: Yale University Press; Airs, M. (1975), *The Making of the English Country House, 1500-1640*, London: The Architectural Press.

⁴⁹ Crook, J. M. (2013), *Brook's 1764-2014: The Story of a Whig Club*, London: Paul Hoberton.

⁵⁰ Lowe, R.A. and Knight, R. 'Building the Ivory Tower: the social functions of late 19th-century collegiate architecture', in *Studies in Higher Education* 7 (1982), pp.81-9; Crook, J.M. (1990), *The Architectural Image* in Thompson, F.M.L. ed. *The University of London and the World of Learning, 1836-1986*, London: The Hambledon Press; Vickery, M.B. (1999), *Buildings for Bluestockings, The Architecture and Social History of Women's Colleges in Late Victorian England*, London, Cranbury, Mississauga: Associated University Presses; Whyte, W. (2006), *Oxford Jackson: architecture, education, status and style, 1835-1924*, Oxford: Oxford University Press; Whyte, W. (2015/ 2016), *Redbrick, A Social and Architectural History of Britain's Civic Universities*, Oxford: Oxford University Press.

⁵¹ *ibid.*, p.14.

⁵² Burke (2008/2017), pp.69-70.

⁵³ Burke (1991), p.14.

⁵⁴ Burke (2008/2017), p.71.

In both instances, as Ludmilla Jordanova comments, visual artefacts, 'dense with meaning, habit and conventions',⁵⁵ provide valuable sources of evidence for historians to examine agency and change since their form and function have been considered by people, who have exercised choice in acts of patronage, exchange and display. As Jordanova argues, by description, analysis, contextualisation and comparison of artefacts, historians can fulfil their task of providing 'clear and convincing articulations' between phenomena that are 'concrete and abstract, local, national and international, individual and collective'.⁵⁶

WHY THE CASE OF THE ST PAUL'S REBUILD

In history, as in the social sciences more broadly, the choice of case is itself critical and has been widely explored.⁵⁷ 'Unscientific' microhistory is perhaps freer than some other social sciences in its qualitative freedom, but the primary benchmark which a historian working within this framework is required to meet is that the case/s selected is/are chosen for: 'the light (it) they can throw upon certain aspects of a past culture... for the light they shed on the life and opinions of those who happened to get involved in the incident in question'.⁵⁸

⁵⁵ Jordanova (2012/ 2016), p.6.

⁵⁶ *ibid.*, p.7. Burke (2017), p.43.

⁵⁷ Merriam, S.B. (1988), *Qualitative Research and Case Study Application in Education*, California: Jossey Bass; Yin, R.K. (1994), *Case Study Research: Design and Methods*, London: Sage Publications; Cohen, L., Manion, L., and Morrison, K. (2000/2007), *Research Methods in Education*, London: Routledge Falmer; Mason, J. (2002), *Qualitative Research*, London: Sage; George, A.L. and Bennett, A. (2005), *Case Studies and Theory Development in the Social Sciences*, Cambridge Massachusetts, London: MIT Press.

⁵⁸ George and Bennett (2005), p.83. George and Bennett suggest that the primary criterion for case selection should be relevance to the research objective – here to establish the role of architecture in secondary education – and contend that researchers can be 'somewhat opportunistic' if they come across a case that displays features that match that intent.

In common with other social-science case studies, the characteristics of the microhistorical case study include: its usefulness in aiding comprehension of complex social phenomena;⁵⁹ its potential to illuminate a set of decisions, why they were taken, how they were implemented and with what result;⁶⁰ and its ability to reflect a large number of intervening variables and inductively observe any unexpected aspects of the operation of a particular causal mechanism to help identify what conditions present in a case activate the causal mechanism. Micro-historical case studies, like their counterparts elsewhere, are strong where statistical methods and formal models are weak, well suited to asking 'how' and 'why' questions.⁶¹ Conversely, while valuable for assessing causal necessity or sufficiency in specific cases, they are weaker at identifying generalised causal effects and likely outcomes across a range of cases.⁶²

Misunderstanding these limitations can be an issue as much for historians as for other social scientists, and, as Brown notes, 'the greatest problem for microhistorians has not been myopic timidity or their reluctance to generalise, but the reverse',⁶³ a viewpoint reinforced by John Tosh who notes that the microhistorian's narrative account of day-to-day events rather than analysis of long-term structural factors is prone to impose a 'drastic simplification on the treatment of cause'.⁶⁴ With these strictures in mind, I have approached this case with 'timidity', hoping to sidestep

⁵⁹ Yin (1994), p.3.

⁶⁰ Schramm, W. (1971, December), p.5. *Notes on Case studies of Instructional Media Projects*, Stanford University, California, Institute for Communication (downloaded 20.4.2018), <https://files.eric.ed.gov/fulltext/ED092145.pdf>

⁶¹ Yin (1993), p.1.

⁶² George and Bennett (2005), p.25.

⁶³ Brown, p.14.

⁶⁴ Tosh (2015), p.129.

these pitfalls and connect the 'micro to the macro scale of historical events without overreaching'.⁶⁵

Operating within these confines, the decision to select the rebuilding of St Paul's School between 1878-1884 as an appropriate case derived from a number of factors:

Availability of sources

Historians, unlike anthropologists, cannot be present to carry out observational research, but, as Stone notes, 'now and again... (they) can find a cloud of witnesses to tell us what it was like to be there'.⁶⁶ During my initial research, I discovered that the building I eventually selected for my study offered unusual opportunities in the sources related to it, from detailed architectural drawings and illustrations to public documents and governors' minutes, as well as a cluster of personal accounts of the way the school functioned both before and after its removal to the new building. In light of this, the building seemed to offer an exceptional opportunity to explore and connect: 'a wide range of data sources so as to produce a contextual, three-dimensional, analytic narrative in which actual people as well as abstract forces shape events.'⁶⁷

A strong example of the 'exceptional normal'

⁶⁵ Brown (2003), p.15.

⁶⁶ Stone (1979), p.14.

⁶⁷ Brown (2003) p.18.

When I began my doctorate, my intention was to study all six buildings that St Paul's had occupied since its foundation in the early sixteenth century in order to examine how and why the school had been entirely reconstructed so frequently and with what effect. At that juncture, I was interested in the entire history of the school's buildings as an example of the 'exceptional normal', with its exceptional quality lying in the fact that it had been rebuilt so often.

Ultimately, my decision to focus more narrowly on the building constructed in the late 19th century derived from the fact that it offered further characteristics which I believed warranted categorisation as 'exceptional normal'. Though rebuilt in the context of a widespread restructuring of endowed secondary schools, the features distinctive to St Paul's were: its new building was designed by one of the most eminent architects of the period; it was one of only two endowed secondary schools,⁶⁸ which straddled the jurisdiction of two widely different Education Acts⁶⁹ addressing the requirements of secondary education for the middle classes; and, finally, it benefited from an unusually wealthy endowment, which allowed it exceptional freedom in making the architectural decisions involved in producing a high-status building in an environment where the status of school buildings was being given new emphasis.⁷⁰

St Paul's is not typical of microhistorical research in being a 'history from below', but it is of interest by virtue of it being a 'history from the middle'. Throughout its

⁶⁸ Merchant Taylors' School was the other.

⁶⁹ The Public Schools Act (1868) and The Endowed Schools Act (1869).

⁷⁰ Robson, E.R. (1874, reprinted 1972 with an introduction by Malcolm Seaborne), p.2, *School Architecture*, Leicester: Leicester University Press.

existence, it has largely been filled by the offspring of the urban, mercantile and professional middle class, a stratum of society which grew significantly in power and influence in the mid- to late 19th century. Microhistory has typically been characterised as focusing on the ‘unheard voices’ of the past, and while the voices of those responsible for the rebuild of St Paul’s have hardly been unheard, they have occasionally been shouted down by louder braying elsewhere. As Brown suggests, the microhistorical methodology is in ‘no way restricted to the social class of its subjects’,⁷¹ and, in this instance, the impact of decisions taken by and for this particular social class had far reaching consequences worthy of investigation.

Current relevance

Recent debate about the role school buildings play in education has raised fundamental questions about their form and function and provoked a significant growth of interest among historians of education.⁷² Building and expanding upon the authoritative foundations laid by studies of school-building programmes published in the 1970s and 80s,⁷³ a number of scholars⁷⁴ have carried out insightful microhistories intended to contribute to the study of ‘the changing relationship over time between pedagogic ideas and building’,⁷⁵ helping to promote a wider and

⁷¹ Brown (2003), p.19.

⁷² Examples include: Burke and Grosvenor (2008); Lawn, M. and Grosvenor I. (eds) (2005), *Materialities of Schooling, Design, Technology, Objects, Routines*, Oxford: Symposium Books.

⁷³ Seaborne, M. (1971), *The English School, Its Architecture and Organization, 1370-1870*, London: Routledge & Kegan Paul; Seaborne and Lowe (1977); Maclure, S. (1984), *Educational Development and School Building: Aspects of Public Policy 1945-73*, Harlow: Longman; Saint, A. (1987), *Towards a Social Architecture: The Role of School Building in Post-War England*, New Haven: Yale University Press

⁷⁴ Examples include: Saint, A., ‘Battersea: Education in a London Parish since 1750’, *History of Education* Vol.39, No.6, November 2010, pp.677-680; De Coninck-Smith, N., ‘Danish and British Architects at Work: A Micro-Study of Architectural Encounters after the Second World War’, *History of Education* Vol.39, No.6, November 2010, pp.713-730.

⁷⁵ Burke, C., Cunningham, P., Grosvenor, I. ‘Putting education in its place’: space, place and materialities in the history of education’, *History of Education* Vol.39, No. 6, November 2010, pp.677-680.

deeper critical appreciation of our way of seeing and using school buildings as sources of historical evidence. In this study, I contribute to this literature.

PRIMARY SOURCES EMPLOYED

One of the strengths of microhistory, as Richard Brown notes, is its methodological intent ‘to recover and reconstruct past events by exploring and connecting a wide range of data sources’.⁷⁶ By this means, the historian comes ‘to understand, however subjectively, the multiple contexts in which people made their decisions and acted out their lives’.⁷⁷

Other scholars have suggested that, regardless of the methodological framework, it is only by amassing ‘as many pieces of evidence as possible from a wide range of sources ...preferably from “all” the sources that have a bearing on the problem in hand’,⁷⁸ that the historian can overcome the potential problems of reliability and bias.

The sources are an incomplete record, and, as McCulloch and Richardson warn,⁷⁹ only documents and artefacts arbitrarily thought worth saving have survived, and these were produced in the first instance with a particular aim and audience in view.⁸⁰ This requires the historian to appreciate the perspective adopted by the originator and the potential bias and interest of others involved in preserving the

⁷⁶ Brown (2003), p.18.

⁷⁷ *ibid.*, p.19.

⁷⁸ Tosh (2015), p.110.

⁷⁹ McCulloch, G. and Richardson, W. (2000), p.79, *Historical Research in Educational Settings*, Buckingham: Open University Press.

⁸⁰ Webb, E.J., Campbell, D., Schwartz, R., Sechrest, L. (1966), *Unobtrusive Measures: Nonreactive Research in the Social Sciences*, London: Rand McNally. Webb *et al* refer to this process as ‘selective deposit’ and ‘selective survival’.

record,⁸¹ interrogating the evidence, in E.P. Thompson's telling phrase with a mind 'trained in a discipline of attentive disbelief'.⁸² Equally, of course, the sources selected must relate to the questions in hand - in this thesis, centrally, 'What role does architecture play in secondary education?', a question I will answer by examining the social processes which led to the rebuilding of St Paul's School.

Fundamental assumptions have been made here about 'the power that visual evidence possesses to define what a society considers both normal and eccentric',⁸³ and, as Barbara Miller Lane indicates, 'since buildings do not speak for themselves', the historian of architecture must call on an unusually wide range of sources to validate this evidence, ranging from: 'the nature of the creative process at a given historical moment; the public statements of intent by both architect and patron; the buildings themselves; the reactions of the users to both statements and buildings; the context, architectural and political, of the works and the writings; and the fundamental social and political conditions under which both appear'.⁸⁴

With these questions and these objectives in mind, in this thesis I have sought out the following sources:

⁸¹ Tosh (2015), p.119.

⁸² Thompson, E.P. (1978), pp.220-1, *The Poverty of Theory*, Merlin Press.

⁸³ Rabb, T.K. (1986/8), p.2, in ed. Rotberg, R.I. and Rabb, T.K., *Art and History, Images and their Meaning*, Cambridge: Cambridge University Press.

⁸⁴ Miller Lane, B. (1986/8), p.310, *Architects in Power: Politics and Ideology in the Work of Ernst May and Albert Speer*, in ed. Rotberg, R.I. and Rabb, T.K., *Art and History, Images and their Meaning*, Cambridge: Cambridge University Press.

- i. The architectural drawings, paintings and photographs related to the St Paul's School building designed by Alfred Waterhouse and the fragment of the building still extant.
- ii. The archival records in the keeping of the Mercers' Company related to decisions taken about the rebuilding of the school.
- iii. Official reports relating to the form and function of secondary schools in England in the mid-19th century.
- iv. Significant architectural and education manuals produced in the period that relate to secondary-school buildings in England.
- v. Biographies, autobiographies, memoirs, school magazines, and novels, which relate to pupil, teacher and governor experience of the Waterhouse-designed building.
- vi. Contemporary newspapers and specialist publications relating to St Paul's, Alfred Waterhouse and secondary-school design.

Architectural drawings, painting and photographs that relate to the St Paul's School building designed by Alfred Waterhouse and the fragment of the building still extant

In architectural history, the building itself is the foremost primary source, and, as Malcolm Seaborne emphasises, the architectural evidence is 'the starting point at every stage of the enquiry',⁸⁵ with on-the-ground research then supported or confirmed by reference to documentary materials.

⁸⁵ Seaborne (1971), p.x.

Sadly, the Waterhouse-designed St Paul's School building of 1878-1884 was sold in 1965⁸⁶ and subsequently demolished. (Its destruction revealingly representative of a widespread disregard for school buildings as significant cultural artefacts.) The only fragment of the original buildings that remains is the High Master's house (**FIGURE 3**), originally a substantial domestic building, now a Grade II-listed hotel,⁸⁷ which provides some idea of the scale, colour, light and ornament of the school building, but clearly has significant limitations in other respects.⁸⁸ In consequence, this thesis has had to rely largely on such 'archaeological' tools as architectural plans, paintings and photography.

The professional archive of the architect Alfred Waterhouse is well preserved and The British Architectural Library at the Victoria & Albert Museum holds a set of drawings for the initial scheme for St Paul's as well as drawings for revised schemes. It also holds a watercolour by the architect representing his idea of the completed building. (**FIGURE 4**)

The plans and elevations were produced by Waterhouse's highly professional practice⁸⁹ not only to function as instructions for builders, but as the key means to illustrate to the client the architect's interpretation of the brief before this was finalised. These detailed documents were presented personally to the decision-makers (including the Charity Commissioners)⁹⁰ by the architect or one of his senior representatives, who would carefully explain their intention to an audience often

⁸⁶ Mead (1990), pp.119-120.

⁸⁷ <http://www.stpaulhotel.co.uk/history-info/> (downloaded 17th February, 2018).

⁸⁸ Internally, the building has been significantly modified.

⁸⁹ Cunningham C. and Waterhouse, P. (1992), pp.140-143, *Alfred Waterhouse 1830-1905, Biography of a Practice*, Oxford: Clarendon Press.

⁹⁰ MM, 8th May, 1879.

unfamiliar with the visual language of architectural plans. By this means, the drawings would act as a prompt for further discussion about scale, budget, layout and other priorities. (The response to the drawings is, therefore, as revealing as the drawings themselves, providing insight into the decision-makers' priorities, something in this case vividly presented in the evolution of the plan.)

Today, a client would be given a tangible impression of a finished structure by means of a presentation model or CGI.⁹¹ These tools were either not available in the 19th century or were not widely used in projects of this scale, but Waterhouse was a highly skilled painter,⁹² and his impression of the school presented to the governors in the form of a large watercolour is a critical source. In the picturesque style for which Waterhouse was celebrated,⁹³ it offered the client a glamorous vision of the future glory of their costly scheme.

Significantly, the drawings were also exhibited at the Royal Academy in 1880,⁹⁴ where it was no doubt intended that the largely prosperous, educated audience (possible prospective parents) would be impressed not only by the talent of the architect, but by the munificence of the client and the strikingly different and impressive new school being constructed.⁹⁵

⁹¹ Computer Generated Image.

⁹² Cunningham and Waterhouse (1992), p.180.

⁹³ *ibid.*, p.180.

⁹⁴ *ibid.*

⁹⁵ Weiner, D.E.B. (1994), p.109, *Architecture and Social Reform in Late Victorian London*, Manchester: Manchester University Press. As Deborah Weiner notes, the illustrations would have spoken 'of an utterly different world from that in which the Board Schools were being built at the time.'

In historical evidence, it is as important to call on 'outsider' as 'insider' sources, and illustrations of the school were also published in the specialist architectural press (both prior to the build⁹⁶ and after completion⁹⁷). These sources were intended for an audience interested in new trends in architecture in general and in school buildings specifically, and the commentary which accompanied these entries provides another perspective of what were considered the key features.

A series of (undated) photographs of the completed school taken about twenty years after its completion offer a more concrete appreciation of its ultimate form and function. Photographic evidence, as John Hardcastle suggests,⁹⁸ has a somewhat tortuous relationship with the three-dimensional object, while Peter Burke has underlined the potential danger of considering the camera as an objective recorder of reality ('Like historians, photographers offer not reflections of reality but representations of it').⁹⁹ Architectural critics such as Walter Benjamin¹⁰⁰ and Sir John Summerson¹⁰¹ have also noted the distortions that arise from a relationship which decontextualises both the site and the material experience of space, recognizing that such disassociation makes it difficult to gauge scale, light, temperature, colour and other critical factors relevant to the experience of a building.

⁹⁶ *The Builder*, August 26th, 1882, pp.279-3.

⁹⁷ *BN*, August 1st, 1884, p.192.

⁹⁸ Hardcastle, J., "'Photographers are the devil': an essay in the historiography of photographing schools", *History of Education*, 4th July, 2013, pp.659-674.

⁹⁹ Burke (1991/1992), p.13.

¹⁰⁰ Benjamin, W., 'The Work or Art in the Age of Reproducibility' in *Walter Benjamin: Selected Writings*, tr. Jephcotts, E., Eiland, H. and others, eds. Eiland, H. and Jennings, M., Vol. 4 (1935-8) (2002), p.103, Cambridge, MA, and London: Belknap Press of Harvard University Press.

¹⁰¹ Summerson, J. (1976), *Building Design*.

Working with these restrictions, Martin Lawn and Ian Grosvenor have been interested in developing agreed critical practice among historians using photographs as historical evidence.¹⁰² Starting from a set of theoretical assumptions about photographs and history ('that photographs exist both in history and as history... and that they never offer a transparent window into the past'),¹⁰³ they have assembled a list of questions about gaze, purpose, audience and meaning that educational historians might ask about pictures connected with past schools. These have been used to frame the analysis.

The archival records of the Mercers' Company

As Roy Lowe has noted 'it is only with cross-reference between "archaeological" and documentary evidence that the study of school design can be fruitfully undertaken in a historic context',¹⁰⁴ and, in this thesis, I have drawn extensively on the minutes of the regular meetings of the St Paul's School governors held in the Mercers' Company archive.

These minutes, created as part of a centuries-old tradition of record-keeping by the Mercers' Company,¹⁰⁵ provide reports on the design and use of the Waterhouse building before, during and after its construction, acting as a record of the choice of headmaster, the choice of architect, the budget, the choice of site and curricular priorities. The records also indicate who took responsibility for various aspects of the

¹⁰² Grosvenor, I., Lawn, M., Rousmaniere, K. eds. (1999), *Silences and Images: The Social History of the Classroom*, New York: Peter Lang.

¹⁰³ Grosvenor, I. (1999), pp.85-100, *On Visualising Past Classrooms* in *Silences and Images: The Social History of the Classroom*, ed. Grosvenor, I., Lawn, M., Rousmaniere, K., New York: Peter Lang.

¹⁰⁴ Lowe, R., 'Studying School Architecture: Some Reflections', *Westminster Studies in Education*, Vol.2., 1979.

¹⁰⁵ Doolittle, I. (1994), p.2, *The Mercers' Company 1579-1959*, London: The Mercers' Company.

design and build, providing verbatim statements from the High Master and the architect, as well as copies of letters received from and sent to the Charity Commission concerning the evolution of the plans.

Though written in formal language and potentially open to public scrutiny, these are primarily private documents produced for practical purposes with no thought of posterity.¹⁰⁶ As such, they provide a useful account of the approach taken by the main executives of the school's reconstruction written from the governors' perspective. To a lesser extent, they also illuminate the relationship between the school governors and the Charity and Endowed Schools' commissioners as it applied to the school buildings.

The attraction of record sources ('witnesses in spite of themselves')¹⁰⁷ is that through them the historian can 'observe or infer the sequence of day-to-day events, free from the controlling purpose of a narrator'.¹⁰⁸ These records, however, as John Tosh reminds us, are as much the creation of an institution as an individual, and must, therefore, be studied in the context of that institution's prevailing values, vested interests, administrative routine and record-keeping procedures.¹⁰⁹ Once these have been established, documents such as these can provide valuable intellectual and social insight into the environment in which they were written.

Official schemes, reports and legislation relating to secondary schools in general and St Paul's in particular, especially the reports and schemes of the

¹⁰⁶ Tosh (2015), p.80.

¹⁰⁷ *ibid.* (2015), p.75. Marc Bloch quoted in Tosh.

¹⁰⁸ *Ibid.*, p.107.

¹⁰⁹ *ibid.*, p.108.

Royal Commissions known as the Clarendon Commission (published 1864) and the Schools Inquiry Commission (published 1868, 1876, 1879)

St Paul's School was relocated and rebuilt as a direct result of two Acts of Parliament, the Public Schools Act of 1868 and the Endowed Schools Act of 1869, and the reports relating to these Acts and the specific schemes outlined for the schools by those who formulated them and enforced them are, therefore, pertinent.

The governance, curriculum, siting and infrastructure of St Paul's were originally investigated by the Clarendon Commission, the Royal Commission whose report of 1864 led to the Public Schools Act of 1868. This report included a detailed scheme for the reform of St Paul's.¹¹⁰ Ultimately, however, St Paul's was (for legal reasons concerning entitlement to the proceeds of its endowment)¹¹¹ excluded from the Public Schools Act, and transferred to the jurisdiction of the Endowed Schools Act of 1869.¹¹² Further schemes¹¹³ were developed for St Paul's by the Charity Commissioners responsible for implementing this Act, which, after protracted negotiation with the governors, formed the basis of the plans to rebuild the school.

The House of Commons parliamentary papers relating to the Clarendon Commission and the Schools Inquiry Commission (who prepared the report leading to the Endowed Schools Act) provide the broader context in which the finalisation of the scheme took place. Both Commissions made on-the-spot investigations and called on written and oral evidence from representatives of religious bodies, professional

¹¹⁰ CC (1864).

¹¹¹ Doolittle (1994), pp.149-172.

¹¹² McDonnell (1909), p.418.

¹¹³ Seaton, R.C. (1911), pp.150-154, *St Paul's School and the Charity Commission*, in Gardiner, R.B., Lupton, J. (eds.), (1911), *Res Paulinae: the Eighth Half Century of St Paul's School*, West Kensington: St Paul's School. In 1876, modified 1879.

bodies, teachers and academics.¹¹⁴ The reports they produced are extensive and highlight what were regarded as the key educational issues of the day.

While recognizing that policy documents such as these are produced within a framework of power, they remain valuable in establishing the state of contemporary secondary education and investigating the assumptions that underlie policy reform and the official rhetoric that legitimised change.¹¹⁵ Reports of parliamentary debate surrounding the published reports further enhance the understanding of enacted policy.¹¹⁶

Due to the extensive nature of these documents, I have kept the focus on St Paul's, relying primarily on the introduction to the reports, which provide a summary of their findings, and on the evidence taken and schedules drawn up for St Paul's School by the Clarendon Commission and the Charity Commissioners.

Architectural manuals, especially *School Architecture* (1874) by E.R. Robson,¹¹⁷ and *Modern School Buildings, Elementary and Secondary* (1902) by F. Clay¹¹⁸

¹¹⁴Maclure (1965/1986), p.90.

¹¹⁵McCulloch, G. (2004), p.80, *Documentary Research in Education, History and the Social Sciences*, London and New York: RoutledgeFalmer.

¹¹⁶ *ibid.*, p.83.

¹¹⁷ Robson (1874/1972).

¹¹⁸ Clay, F. (1902/1906), *Modern School Buildings, Elementary and Secondary*, London: B.T. Batsford.

Beyond the school itself, there is a rich and varied contemporary literature by architects, architectural theorists and educational theorists about the 'best' way to build a school. Contemporary educational theorists, both from England¹¹⁹ and elsewhere,¹²⁰ travelled extensively in the UK, Europe and the US, commenting on the design of new secondary schools and the political context in which these were being built, and the period also saw the publication of various influential manuals on school-building design, which explore both practical and stylistic considerations. These latter works written by architects were intended to benefit those actively involved in the creation of school buildings as well as those formulating policy. As such, they help to contextualise the decisions taken at St Paul's.

Books, as Gary McCulloch notes,¹²¹ have long been the principal means of challenging established orthodoxies. Like other sources, however, they must be questioned, and the historian must ask how far they contributed to contemporary debate and to what extent the author was able to put the ideas expressed within them into practice. In this thesis, I have relied extensively on two books, both of which have a direct bearing on the design of St Paul's, one written shortly before the build, the other two decades after its completion. These books were selected not only because they bookend the period under examination, but because their authors had unusual scope to implement the ideas outlined within them.

¹¹⁹ Arnold (1864); Arnold, M. (1874), *Schools and Universities in France*, London: Macmillan and Co; Staunton, H. (1865), *The Great Schools of England*, Isbister: Daldy.

¹²⁰ Marguerin, E. (1964), *De L'enseignement des Classes Moyennes et des Classes Ouvrières en Angleterre: Rapport Présentée à M. Le Sénateur, Préfet de La Seine*, Paris: Charles de Mourgues Frères.

¹²¹ McCulloch (2004), p.75.

E.R. Robson's *School Architecture*, published in 1874, was written in the wake of the Elementary Schools Act (1870) soon after its author's appointment as Chief Architect of the London School Board.¹²² In this capacity, Robson was to become responsible for the oversight of nearly 300 London board schools erected in the last quarter of the century,¹²³ and is credited with the propagation of a distinctive educational architectural style, which a later critic termed the '*Board School*' style.¹²⁴ **(FIGURE 5)** Robson's influence was further disseminated in his later role as consulting architect to the Education Department,¹²⁵ a post he held for 20 years from 1884, and in his work as an assessor of competitions for new schools.¹²⁶

School Architecture, intended to promote a new age of publicly-funded school architecture and furnish a 'distinctive rationale'¹²⁷ for the design of the new London elementary schools, became the standard text on its subject.¹²⁸ Though its focus is the design of board schools, it remains a valuable resource for the study of St Paul's for a number of reasons. Firstly, it extensively documents and illustrates contemporary secondary schools in Europe and the US; secondly, in a chapter devoted to 'middle schools',¹²⁹ it provides evidence of both the amorphous understanding of the word 'secondary school'¹³⁰ and of the influential involvement of

¹²² Whyte, W. (2006/08), '*Robson, Edward Robert (1835-1917)*', *Oxford Dictionary of National Biography*, Oxford: Oxford University Press. Robson remained in the role from 1871-1884.

¹²³ Seaborne (1874/1982), Introduction, pp.31-4; Whyte (2006).

¹²⁴ Goodhart-Rendel, H.S. (1953/1989), p.163, *English Architecture Since the Regency, an Interpretation*, London: Century.

¹²⁵ Whyte (2006/08). Robson's rules for school building, issued annually between 1884 and 1904, influenced designs throughout the country.

¹²⁶ Harper, R.H. (1983), p.xxiv, *Victorian Architectural Competitions, An Index to British and Architectural Competitions in The Builder, 1843-1900*, London: Mansell Publishing Limited.

¹²⁷ Seaborne (1874/1982), Introduction, p.13.

¹²⁸ Whyte (2006/8).

¹²⁹ Robson (1874/1982), pp.232-243.

¹³⁰ This chapter covers two buildings now categorised as universities, Owens College in Manchester and Girton College, Cambridge, both designed by Alfred Waterhouse.

Alfred Waterhouse in a developing landscape;¹³¹ thirdly, it champions the idea that a school building should have its own distinctive style;¹³² and, finally, it provides detailed information about practical aspects of school design, such as light, ventilation and the design and equipment of gymnasia.

Modern School Buildings, by Felix Clay, the Chief Architect to the Board of Education between 1904 and 1927,¹³³ was written in the wake of the Balfour Education Act and became an equally influential work, running to three editions¹³⁴ and numerous reprints. Its author was inspired to write it when he joined 'a body concerned with the building and management of a considerable number of Secondary Schools'¹³⁵ and 'felt very strongly the want of a book dealing with the ordinary questions arising in connection with their buildings'.¹³⁶ Though the work was not intended 'to suggest the lines upon which the perfect school of the future will be planned', numerous illustrations of existing school buildings¹³⁷ were included to demonstrate 'the different methods that have been tried to meet those requirements'.¹³⁸

¹³¹ Waterhouse is not referenced by name.

¹³² Robson (1874/1982), p.2.

¹³³ *Who Was Who*, 1st December, 2007, *Clay, Sir Felix (24 Nov. 1871-11 Nov. 1941), architect*, online at www.ukwhoswho.com (downloaded 16.8.2018); Armytage, W.H.G. (1964/ 1970), p.209, *Four Hundred Years of English Education*, Cambridge: Cambridge University Press. Clay issued the first secondary-school building regulations in 1907. These laid down new principles in lighting, hygiene and accommodation (gymnasia, practical rooms and laboratories), as well as establishing the standard size of classrooms.

¹³⁴ 1902, 1906, 1929.

¹³⁵ Clay (1902/06), p.vii. Preface to the first edition, 1902. Reprinted in the second.

¹³⁶ *ibid.*, p.7. The reasons Clay gives for this comparatively limited previous exposure are both relevant to this study. Firstly, he states that secondary-school buildings are 'more intricate in their organisation and planning' and secondly that 'such schools are in most cases private institutions, so that there is a lack of the tabulated information, particulars and opportunities of inspection so easily available in the case of buildings erected by School Boards.'

¹³⁷ *ibid.*, p.viii.

¹³⁸ *ibid.*

The book covers elementary and infant education, but secondary-school design was its '*principal aim*',¹³⁹ and the volume includes a full set of Waterhouse's plans for St Paul's¹⁴⁰ and a discussion of their key attributes,¹⁴¹ as well as mentions of other aspects of the design.¹⁴² The architect is not named (though the drawings are signed), and, unlike other schools given in the book, there is no image of the elevation, suggesting that its planning rather than its style were of interest to Clay.

Written immediately after a hugely influential Act concerning the development of secondary education, this work offers a similarly useful summary of 'best' practice to that provided by Robson in relation to elementary education, again furnishing a survey of recent secondary-school building in Britain, on the Continent and in the US, by an author who was in a powerful position to implement his findings.

Biographies, autobiographies and memoirs, school magazines and fictional accounts

In this thesis, I conclude that the St. Paul's school building conceived by the school's governors' and its headmaster (in conjunction with the Charity Commissioners) and designed by Alfred Waterhouse represented a new type of school building. The experience of the education conducted within it, is, therefore, significant, and this thesis has relied on experiential accounts (including visual records)¹⁴³ of the school by current and former pupils and members of staff. These have been found in a

¹³⁹ Clay (1902/06), p.vii. Preface to the first edition, 1902. Reprinted in the second. It covers day and boarding schools, the former at approximately double the length (160 pages versus 65).

¹⁴⁰ *ibid.*, Pls.119-121. All plans in the book were lent by the architects responsible.

¹⁴¹ *ibid.*, pp.171-2. They appear in the chapter on *Examples of Buildings in England, Germany and America*, pp.144-189.

¹⁴² *ibid.*, p.63. Such as classroom size.

¹⁴³ Shepard, E.H. (1961), *Drawn from Life*, London: Methuen. This autobiography is extensively illustrated by its author.

variety of formats, ranging from celebratory volumes about the school to contemporary accounts in the school's magazine, autobiographies, memoirs and works of fiction. Each format requires the historian to take specific care.

As Ludmilla Jordanova identifies,¹⁴⁴ prosopography (the study of collective biographies) is an approach originally taken by ancient historians to address the lack of complete sources. More recently, it has been adopted by historians who study communities that are relatively easy to define (groups likely to have 'values and aspirations in common') in order to discern patterns and anomalies that promote deeper historical understanding. In a case study such as this, these collective memories, however flawed, can act as some substitute for the interview and direct observation carried out by social scientists in case-study research.¹⁴⁵

Despite the self-evident limitations of 'celebratory' literature, the texts supplied for *Res Paulinae* in 1911,¹⁴⁶ a volume published by the school five years after Walker's retirement to commemorate the school's 'eighth half century', provide a rich seam of material regarding student and teacher experience, both in the new school building and, as a point of comparison, at the school on its original site. While this literature, characteristic of such carefully edited volumes, largely glosses over negative aspects of the educational experience, it is also, unusually perhaps, often painstakingly

¹⁴⁴ Jordanova, L. (2000), p.179, *History in Practice*, London: Arnold.

¹⁴⁵ Yin (1994), pp.84-7.

¹⁴⁶ Simon, B. (1965), p.109, *Education and the Labour Movement, 1870-1920*, London: Lawrence & Wishart. Simon argues that the multitude of memoirs and novels produced at the turn of the century helped cultivate 'the mystique of public school life'. *Res Paulinae*, while, a variation on a theme, is perhaps less misty-eyed than some.

accurate, produced by former pupils and staff whose subsequent or previous professions¹⁴⁷ trained them in rigorous attention to factual accuracy.¹⁴⁸

School magazines¹⁴⁹ offer a further valuable resource. Intended as a 'chronicle of the doings of the school and its members, present and past', ¹⁵⁰ these publications, produced by current members of the school for current and past members, served, as a contemporary teacher noted,¹⁵¹ several important functions, foremost amongst which were: firstly, 'to bind Old Boys of the school to the community which, in every sense but that of sentiment, they have left';¹⁵² and, secondly, to secure 'a numerous and powerful band of allies to the side of the school'.¹⁵³ These magazines are largely uncritical (though the occasional 'sly dig and ...good-humoured quip'¹⁵⁴ is permitted), and their promotional function is carefully overseen by teaching staff to ensure a rogue pupil 'editor' does not cause offence.¹⁵⁵ With these strictures in mind, these documents can serve as a key source for 'the beliefs and values of an era',¹⁵⁶ as well as providing chronological evidence of how different aspects of the school buildings and facilities evolved.

¹⁴⁷ Hayavadano Rao, C. (1915), *The Indian Biographical Dictionary*, Madras: Pillar. For example, the main biographer of Frederick William Walker in this volume, Victor Murray Coutts-Trotter, KC, who attended the school from 1885-1893, went on to become Vinerian Professor of Law at Oxford and a High Court Judge in India.

¹⁴⁸ McCulloch, G. (2008), pp.51-63, *Historical Insider Research in Education*, in Sikes, P., Potts, A. (eds.), *Researching Education from the Inside: Investigations from Within*, Abingdon: Routledge. As McCulloch comments, even though such 'house history' has a poor reputation, historians of a certain stature can nonetheless be relatively detached, while taking advantage of privileged access to the archive and records.

¹⁴⁹ Mead (1990), p.95. *The Pauline*, the St Paul's School magazine, following on from earlier magazines, began in 1882 with official backing.

¹⁵⁰ Serpell, H.W. (1909), p.477, *The School Magazine*, in Norwood, C. and Hope, A.H., *The Higher Education of Boys in England*, London: John Murray.

¹⁵¹ Norwood, C. and Hope, A.H. (1909), p.xiv, *The Higher Education of Boys in England*, London: John Murray. Serpell was chief modern language master at Leeds Grammar School.

¹⁵² Serpell (1909), p.478.

¹⁵³ *ibid.*

¹⁵⁴ *ibid.*, p.479.

¹⁵⁵ *ibid.*

¹⁵⁶ McCulloch (2004), p.94.

The autobiographical literature relating to St Paul's for the period in question is unusually extensive¹⁵⁷ and this form of 'life' presents specific problems. Generally intended for posterity, it suffers from the obvious hazard that much of it is not produced until decades after the writer attended the school, when memory has played its own haphazard edit. In regard to the literature relating to St Paul's, it is clear, no doubt in consequence, that at least some of the memoirs produced about the Walker headship were significantly dependent on previously published work.¹⁵⁸

In addition, the range of authors is representative of only a relatively small group of former pupils.¹⁵⁹ St Paul's was a school with a particularly strong literary tradition, and many of the writers are, unsurprisingly, the successful product of this tradition. Though this leaves an unbalanced record (a record, which in other respects, might be considered reflective of the elite the school sought to form), these works remain insightful, providing triangulation of events, school organisation and personalities, as well as 'a considered judgement on past events'.¹⁶⁰ Some are also undoubtedly useful in furnishing hard-to-come-by information about aspects of the curriculum not considered priorities in the school's official histories, such as the teaching of mathematics¹⁶¹ and art.¹⁶²

¹⁵⁷ Marcy, W.N. (1932), *Reminiscences of a Public Schoolboy*, London: Elkin Mathews & Marrot; Sams, H.A. (1933), *Pauline and Old Pauline, 1884-1931*, Cambridge: University Press Cambridge; Chesterton, G.K. (1936), *Autobiography*, London: Hutchinson; Bentley, E.C. (1940), *Those Days*, London: Constable & Co Ltd; Nash, P. (1949/1988), *Outline*, London: Columbus Books; Littlewood, E.N. (1953), *A Mathematician's Miscellany*, London: Methuen and Co; Woolf, L. (1960), *Sowing, An Autobiography of the Years 1880-1904*, London: The Hogarth Press; Shepard (1961); Mackenzie, C. (1963), *My Life and Times, Octave Two*, London: Chatto & Windus; Bailey, C. (undated), *Memoirs*, Balliol College archive.

¹⁵⁸ Sams (1933), p.13. Sams, for example, makes it explicit he had read Compton Mackenzie's *Sinister Street*; while Cyril Bailey (undated), p.30, also refers to *Sinister Street*.

¹⁵⁹ McCulloch (2004), p.120.

¹⁶⁰ *ibid.*

¹⁶¹ Littlewood (1953).

¹⁶² Shepard (1961).

The autobiography of key figures involved with the school, such as Lord Selborne, whose four-volume memoir¹⁶³ remains the primary source for his life and work, suffers from the further drawback of having been edited by someone - in this case, his daughter - whose protective personal investment, introduces a further element of bias, which must be recognised and investigated by comparison with other sources.

St Paul's is a school, which has produced creative writers of considerable merit, and several semi-autobiographical literary novels¹⁶⁴ about the school give evocative descriptions of the way the school operated after the rebuild. Historians generally consider that novels cannot be given the same weight as factual reports,¹⁶⁵ believing that a documentary approach is more likely to discourage the narrator from making statements lacking in evidence.¹⁶⁶ In consequence, they are largely dismissive of fiction, allowing its use only to illustrate a record established from a more reliable source. Nonetheless, as Tosh comments, 'all creative literature offers insights into the social and intellectual milieu in which the writer lived, and often vivid descriptions of the physical setting.'¹⁶⁷ The latter attribute, I would argue, is particularly valuable in the context of buildings, where impressions of space and atmosphere are both so significant and so rarely documented.¹⁶⁸

¹⁶³ Palmer, R. (1896), *Memorials, Part 1, Family and Personal, 1766–1865*. Vol. 1., London, New York: Macmillan; Palmer, R. (1896), *Memorials, Part 1, Family and Personal, 1766–1865*. Vol.2., London, New York: Macmillan; Palmer, R. (1898), *Memorials, Part II, 1865-1895, Personal and Political*, Vol.1., London, New York: Macmillan; Palmer, R. (1898), *Memorials Part II, 1865-1895, Personal and Political*, Vol. 2., London, New York: Macmillan.

¹⁶⁴ Mackenzie, C. (1913/1960), *Sinister Street*, London: Penguin Books; Raymond, E. (1961), *Mr. Olim*, London: Cassell. *Sinister Street*, Compton Mackenzie's influential autobiographical *bildungsroman*, was published when he was just 20.

¹⁶⁵ Marwick (1981), p.147, *The Nature of History*, 2nd Edition, London: Macmillan.

¹⁶⁶ Burke (2005/2009), p.127.

¹⁶⁷ Tosh (2015), p.79.

¹⁶⁸ Jordanova (2012/ 2016), p.7; Watt, I. (1957), p.13, *The Rise of the Novel: Studies in Defoe, Richardson and Fielding*, London: Chatto & Windus.

Contemporary newspapers and specialist journals

Tosh suggests that newspapers, generally written ‘to inform, influence or mislead’ with little thought for posterity, are (once editorial bias has been factored in), *the* most important published primary sources for the historian, with a threefold value of: recording the social and political views that made the most impact at the time; providing a day-to-day record of events; presenting the results of more thorough enquiries into issues that lie beyond the scope of routine news reporting.¹⁶⁹ St Paul’s was considered an important ‘public’ school (and thus a school in which the public had an interest) and accounts of developments at the school appeared regularly in the national press, which featured events related to the school and comment about its management.¹⁷⁰

Specialist publications offer a further public source of commentary and information, valuable both as a means of focusing on specific developments and as a way to gauge continuities and change over time,¹⁷¹ and this thesis has relied extensively on the vibrant contemporary architectural press, and, to a lesser extent, on the educational press, as a backdrop to evaluating the decisions taken at St Paul’s.

The architectural press of the period regularly reported on educational buildings and on the work and views of Alfred Waterhouse, whose activities, including his speeches as President of the RIBA, were extensively covered. Of these journals, the

¹⁶⁹ Tosh (2015), pp.78-9.

¹⁷⁰ *The Times*, for example, carried regular reports of St Paul’s annual speech day, as well as an account of the official opening of the new school, political comment related to the school, and the obituary of the head. Between 1860 and 1894, it printed over 500 references to the school.

¹⁷¹ McCulloch (2004), p.82.

most influential were: *The Builder*, which began weekly publication in 1843,¹⁷² and *Building News*, which launched in 1855.¹⁷³ Both publications carried information about school buildings of all types throughout the country providing illustrations and plans and, particularly in the 1880s and 90s, information about competitions for schools, accompanying reporting on the winning design with frank criticism.¹⁷⁴

Of the two, *The Builder* (which gave considerable prominence both to the new St Paul's building and to the career of Alfred Waterhouse), was the more authoritative. By 1883, its readership included: 'the architect, engineer, archaeologist, contractor, sanitary reformer, and art lover',¹⁷⁵ and it acted as a 'sounding board for technical opinion, a stimulant for social reform, an opinion-maker on industrial relations, a disseminator of professional and technical information'.¹⁷⁶ By identifying and commenting on a host of new, but allied, problems in urban activity and presenting its readership with information about these in well written-articles and high-quality illustration and photography, it became, in many ways, 'the social and aesthetic urban conscience for the builder of Victorian England'.¹⁷⁷

The education press during the mid 19th century largely focused on elementary education, but from the 1860s a flurry of, generally short-lived, journals appeared

¹⁷² Harper (1983), p.xviii.

¹⁷³ <http://onlinebooks.library.upenn.edu/webbin/serial?id=buildingnewseng> (downloaded 30th May, 2018). *The Building News and Engineering Journal*. (Hereafter, BN). Begun in 1854 as *The Building News*, it was renamed *The Building News and Architectural Review* in 1860, and *The Building News and Engineering Journal* in 1863.

¹⁷⁴ Harper (1983), p.xviii.

¹⁷⁵ *The Builder*, quoted in Harper (1983), p.xviii.

¹⁷⁶ Anthony King (1968), quoted in Harper (1983), p.xvii.

¹⁷⁷ *ibid.*

concentrating on secondary education.¹⁷⁸ These highlighted aspects of the curriculum then receiving greatest attention, such as physical education and science, and provide evidence of middle-class preoccupations, such as the relative merit of the modern and classical 'sides'.¹⁷⁹ None, however, had the reach or spoke with the authority of the leading architectural publications.

CONCLUSION

These sources have proved valuable in all aspects of the thesis, enhancing my understanding of the perspective from which each of the decision-makers made decisions and how this related to the origin of the design, the design itself, and the way the building functioned over time.

I found the plans for the building a particularly useful resource, allowing me to extract quantitative information to triangulate with written accounts of the school's use. In the autobiographical literature of former pupils, for example, the school is depicted as one where the 'science' side was both of lower status and of negligible interest to the head. Yet, the plans reveal that approximately a third of the entire building (and hence considerably more than a third of the teaching space) was devoted to facilities related to instruction in science, a balance reflected in data about school-leavers' destinations found in the school registers.

¹⁷⁸ Fletcher, L. (1978), p.30, *The Teachers' Press in Britain*, Leeds: Leeds University Press. From 1865, nine new journals appeared within eleven years, a reflection of the rapid expansion of secondary education in this period. Only the *Quarterly Journal of Education*, however, lasted, surviving into the second half of the 20th century as the *Journal of Education*.

¹⁷⁹ *ibid.*, p.36.

The wide range of primary sources I employed have furnished me with the historical evidence 'to produce a contextual, three-dimensional, analytic narrative in which actual people as well as abstract forces shape events',¹⁸⁰ but, in order to fulfil the equally critical microhistorical imperative of drawing 'far wider generalisations made within relatively narrow dimensions'¹⁸¹ and mitigate against a 'drastic simplification on the treatment of cause',¹⁸² I have contextualised these findings within the wider historical literatures on education and on architecture. In the next chapter, I turn to the use made of secondary sources.

¹⁸⁰ Brown (2003), p.18.

¹⁸¹ *ibid.*, p.98

¹⁸² Tosh (2015), p.129.

CHAPTER 3: THE USE OF SECONDARY LITERATURE IN A MICROHISTORICAL CASE STUDY

INTRODUCTION

To set my microhistorical case study in context and more fully understand the choices made at St Paul's, I have considered a range of secondary literature. I have reviewed and evaluated the existing literature related to secondary-school building design during the period in question, assessing the relevance of these literatures for this study and the extent to which they contribute to understanding the choices made at St Paul's School. I have done so, under the following headings.

- i. 19th-century education policy.
- ii. The role of the public schools.
- iii. Public-school histories and biographies of influential figures.
- iv. Literature relating to the evolution of the curriculum.
- v. Public examinations and 19th-century education.
- vi. School architecture and the architecture of Alfred Waterhouse, architect of St Paul's.
- vii. Literature related to architectural patronage in the 19th century.
- viii. Literature on interior design and the materiality of schools.

LITERATURES

19th-century education policy

St Paul's School moved from its original site in the City of London to a new site in Hammersmith in 1884 as a direct result of government intervention, and literature about contemporary education policy illuminates the rationale for this move. There is an extensive literature on English education policy during the period in question. This has largely focused on the gradual evolution of entitlement to education, examining change in a national and international context through three significant legislative milestones: the Public Schools Act (1868, etc.); the Endowed Schools Act (1869); and the Elementary Schools Act (1870). Each Act was preceded by a Royal Commission established to investigate the state of contemporary education and all three Commissions considered the siting and design of school buildings in their extensive reports.¹

St Paul's was initially investigated by the Clarendon Commission,² whose report of 1864 preceded the Public Schools Act (1868). This report contained a detailed survey of existing conditions at the school and recommendations for the school's improvement, including expansion, curricular change and relocation. For legal reasons specific to St Paul's, however, the school was ultimately rebuilt under a

¹ The Elementary Education Act (1870) has received the widest attention as it extended educational provision to all. Whilst the development of primary education is outside the scope of this study, this Act is significant because of the multitude of school buildings produced in its wake.

² Mead (1990), pp.68-70.

scheme that was dictated by the priorities of the Schools Inquiry Commission and the Endowed Schools Act.³ An appreciation of the background and context of these two Acts is, therefore, immediately relevant.

Each Act has been analysed in various surveys of the period⁴ and in dedicated works evaluating the complex, long-term social, political and economic forces which brought the Acts about.⁵ In general, however, the literature relating to the Acts, while providing relevant background to my research, inevitably concerns itself with systematic, large-scale change, rather than the detailed development of infrastructure.

Thus, David Allsobrook's *Schools for the Shires*,⁶ one of the few works to have fully examined the Schools Inquiry Commission, provides a careful account of the attempts to organise and make new provision for the education of the English middle classes by redeploying historic endowments, throwing light on the precedents for the SIC's recommendations. Similarly, Colin Shrosbree's *Public Schools and Private Education, The Clarendon Commission, 1861-64, and the Public School Acts*⁷ offers a useful analysis of the political debate surrounding the Public Schools Act, arguing that the Act had a number of significant consequences, foremost amongst which was the creation of a superior echelon of schools,⁸ whose priorities lay as much in

³ Mead (1990), p.72.

⁴ Simon, B. (1960, reprinted 1966), *Studies in the History of Education, 1780-1870*, London: Lawrence & Wishart; Armytage (1964/1970); Jones, D.K. (1977), *The Making of the Education System, 1851-81*, London, Henley and Boston: Routledge and Kegan Paul; Aldrich, R. (1982), *An Introduction to the History of Education*, London: Hodder & Stoughton; Green (1990/ 1992).

⁵ Seaborne and Lowe (1977), p.20.

⁶ Allsobrook, D.I. (1986), *Schools for the Shires, The Reform of Middle-Class Education in Mid-Victorian England*, Manchester: Manchester University Press.

⁷ Shrosbree (1988).

⁸ *ibid.*, p.217.

producing English ‘gentlemen’⁹ as in furthering academic attainment.¹⁰ This work is of particular value in establishing how St Paul’s was viewed by those who defined the term ‘public-school’, as well as in demonstrating how the Public Schools Act helped to entrench educational conservatism.¹¹ It also makes clear that, as well as reforming school governance, the Act underlined the assumption that secondary education should be run on commercial principles, allowing income from fee-paying boys to be increased, so resolving the financial and legal ambiguities which had hindered schools’ attempts to improve buildings and facilities.¹²

The role of the public schools

While St Paul’s was ultimately excluded from the Public Schools Act, contemporaries continued to regard it as a ‘public school’,¹³ and literature relating to the Victorian public schools has, therefore, helped frame the context of this thesis. The Public Schools Act dealt with only seven schools educating just 2708 boys,¹⁴ but, in the final quarter of the 19th century, the term public school was applied to a broad sweep of secondary schools and there is a significant body of work examining these schools collectively. This literature has largely arisen from the view that the schools were highly influential in shaping the political and social development of England in the late 19th and early 20th century, educating a disproportionate majority of the elite (political, administrative, military and social).

⁹ CC (1864), Vol. I, p.56. The report sums up their contribution as having had ‘perhaps the largest share in moulding the character of an English gentleman.’

¹⁰ Shrosbree (1988), p.216.

¹¹ *ibid.*, p.217.

¹² *ibid.*, p.15.

¹³ *ibid.*, p.93. As Shrosbree notes: ‘There is no evidence that ... St Paul’s... lost (its) claim to public school status after (it) evaded the provisions of the Public Schools Acts.’

¹⁴ *ibid.* p.2.

As early as 1909, H. Lionel Rogers provided a negative critique of the education these school offered,¹⁵ and Lytton Stratchey famously parodied the model in an essay on Thomas Arnold in *Eminent Victorians* in 1918.¹⁶ Serious historical interest, however, developed from the late 1930s, when a two-volume survey by the American historian Edward Mack¹⁷ contextualised attitudes to the school in the broader community, arguing that the wealthy and privileged enjoyed educational advantages which they failed to adapt to changes in external conditions.

A cluster of works then appeared in the 1960s-80s, a period when the impact of these schools seemed likely to be diminished by the extension of comprehensive education. These studies, often written by products of the public-school system - authors largely sympathetic to its history and survival - are concerned with the contribution the schools made to elite formation, exploring how their curriculum, values and ideology furthered this objective.

In *Godliness and Good Learning: Four Studies in a Victorian Ideal*,¹⁸ the social and ecclesiastical historian David Newsome (himself the headmaster of two 'public schools')¹⁹ explored the shift in 19th-century values articulated in the public schools, tracking their development from early Victorian piety to late-Victorian '*muscular*

¹⁵ Lionel Rogers, H. (1909), pp.523-532, *The Reform of the Public School* in Norwood, C. and Hope, A.H. (1909), *The Higher Education of Boys in England*, London: John Murray.

¹⁶ Stratchey, L. (1918/ 1928), *Eminent Victorians*, London: Chatto & Windus.

¹⁷ Mack, E.C. (1938), *Public Schools and British Opinion, 1780-1860*, London, Methuen & Co; Mack, E.C. (1941), *Public Schools and British Opinion Since 1860*, New York: Columbia University Press. Newsome, D. (1961), *Godliness and Good Learning*, London: Cassell Publishers Ltd.

¹⁸ Newsome, D. (1961), *Godliness and Good Learning*, London: Cassell Publishers Ltd.

¹⁹ *The Times*, Friday April 30th, 2004. Christ's Hospital and Wellington.

Christianity'. This influential work examined how these values were expressed in the school curriculum and, by implication, school facilities. Thomas Bamford traced the growth, evolution and influence of the boarding schools examined by the Clarendon Commission (and a range of other public schools),²⁰ looking at the impact of demographic shift, curricular change, power dynamics within the schools and decisions taken about infrastructure. J.R. de S. Honey analysed the growth of a 'system', an articulated and coherent set of schools serving a common set of social functions, examining the similarities of process (including the increased number and range of buildings),²¹ while John Chandos,²² looked at the schools pre-Clarendon from the pupil's perspective, charting a transition from liberty and boy rule, to the more top-down surveillance and control in the post-Clarendon period.

A clutch of works has also looked at the schools on a more thematic basis, and Elizabeth Krumpe provides a helpful synthesis of the views expressed by the Clarendon heads (on curriculum, sport, etc.) in the years immediately after the Act(s),²³ including their perspective on school infrastructure. Rupert Wilkinson explores the theme of leadership in his study of public-school prefects,²⁴ arguing that this form of organisation was intended to operate as the induction of a new social class to political responsibilities; Alicia Percival offers a valuable account

²⁰ Bamford, T.W. (1967), *The Rise of the Public Schools, A Study of Boys' Public Schools in England and Wales from 1837 to the Present Day*, London and Edinburgh: Thomas Nelson

²¹ Honey, J.R.de S. (1977), *Tom Brown's Universe, The Development of the English Public School in the Nineteenth Century*, New York: Quadrangle/The New York Times Book Company.

²² Chandos, J. (1984), *Boys Together, English Public Schools 1800-1864*, New Haven and London: Yale University Press

²³ Krumpe, E.C. (1987), *The Educational Ideas of the Clarendon Headmasters from 1860-1914*, New York and London: Garland Publishing

²⁴ Wilkinson, R. (1964), *The Prefects, British Leadership and the Public School Tradition*, London: Oxford University Press.

of the foundation of the Headmasters' Conference;²⁵ while a collection of essays edited by Brian Simon,²⁶ which includes his summary of the impact of the public-school system, furnishes further insight into various aspects of the curriculum (science, sport) and architecture.²⁷

The literature explores characteristics seen as common to these schools, and, while accepting that the term public school is imprecise,²⁸ has generally taken it to mean a boarding school charging significant fees to an affluent upper-middle and upper-class clientele. Other distinguishing features are considered to be : a curricular balance heavily weighted towards the classics; a central role played by the Anglican faith, manifested in the appointment of a head in holy orders, who preached regularly to the entire school during compulsory attendance at a school chapel; a focus on team sports intended to develop virtues of character (such as leadership and 'esprit de corps');²⁹ school discipline administered by senior pupils in their capacity as prefects. As St Paul's in its new building developed in a significantly different way to that outlined in the literature, these works provide a valuable point of contrast.

Secondary-school histories and biographies of influential figures

²⁵ Percival, A. (1969), *The Origins of the Headmasters' Conference*, London: John Murray

²⁶ Simon, B. and Bradley, I. (eds.) (1975), *The Victorian Public School*, Dublin: Gill and Macmillan.

²⁷ Meadows, A.J. and Brock, W.H., *Topics Fit for Gentlemen: The Problem of Science in The Public School Curriculum*; Mangan, J. A. (1975), *Athleticism: A Case Study of the Evolution of an Educational Ideology*; Seaborne, M., *The Architecture of the Victorian Public School*. Seaborne makes a brief, not entirely complimentary, reference to the Waterhouse building at the end of this essay. Elsewhere 'public school architecture' is also explored by William Whyte. (W., 'Building a Public School Community, 1860-1910', *History of Education: Journal of the History of Education Society*, (November 2003), 32:6, pp.601-626.)

²⁸ Shrobbree (1988), p.12; Bamford (1967), pp.ix-xv.

²⁹ Mangan, J. A. (1975), *Athleticism: A Case Study of the Evolution of an Educational Ideology*, in Simon, B. and Bradley, I. (eds.) (1975); Mangan, J.A. (1981/ 2000), *Athleticism in the Victorian and Edwardian Public School: The Emergence and Consolidation of an Educational Ideology*, Cambridge: Cambridge University Press; Mangan, J.A. (1986), *The Games Ethic and Imperialism*, London: Frank Cass.

St Paul's School in its new building in West Kensington developed in a way which set it apart from its counterparts. To establish why this was the case it was necessary to appreciate the priorities of comparable schools and I have, therefore, consulted, the extensive literature directly related to specific 19th-century public and endowed secondary schools.

Much of this is in the form of school histories, produced by/or for individual schools at various, usually celebratory, points in their history (centennials, etc.).³⁰ These works, designed for alumni and current school pupils, parents and staff as their main audience, are largely uncritical. In addition, I have referred to biographies of well-known headmasters who provided key reference points both in the debates of the Charity commissioners³¹, and/or who were associated with schools that were influential on Walker.³²

Within the context of this thesis, this literature has had different functions. Some has been useful as a primary source, illuminating views held by those immediately

³⁰ This thesis has relied on a wide range of these works, including histories of: Cheltenham College (Morgan, M.C., 1968, *Cheltenham College, The First Hundred Years*, Chalfont St Giles: Richard Sadler); Christ's Hospital (Seaman, C.M.E., 1977, *Christ's Hospital, the Last Years in London*, London: Ian Allan); King Edward's School Birmingham (Hutton, T.W., 1952, *King Edward's School Birmingham 1552-1952*, Oxford: Basil Blackwell); Lancing College (Kirk, K.E., 1952, *The Story of the Woodard Schools*, Abingdon: Abbey Press); Radley College (Boyd, A.K., 1948, *The History of Radley College, 1847-1947*, Oxford: Basil Blackwell); St Olave's and St Saviour's Grammar School (Carrington, R.C., 1971, *Two Schools*, London: The St Olave's and St Saviour's Grammar School Foundation); Westminster School (Tanner, L.E., 1923, *Westminster School Its Buildings and their Associations*, London: Philip Allan & Co); Winchester College (Dilke, C., 1965, *Dr Moberly's Mint Mark: A Study of Winchester College*, London: William Heinemann).

³¹ Leinster-Mackay, D., 1987, *The Educational World of Edward Thring, A Centenary Study*, London: The Falmer Press; Sandford, E.G., 1907, *Frederick Temple, An Appreciation*. London: Macmillan & Co.

³² Bamford, T.W., 1960, *Thomas Arnold*, London: The Cresset Press; Bamford, T., 1975, *Thomas Arnold and the Victorian Idea of a Public School*, in *The Victorian Public School*, eds. Simon, B. and Bradley, I., Dublin: Gill and Macmillan; McCrum, M., 1989, *Thomas Arnold, Headmaster*, Oxford: Oxford University Press; Copley, T., 2002, *Black Tom, Arnold of Rugby: The Myth and the Man*, London and New York: Continuum; Davidson, T.R., Benham, W., 1891, *Life of Archibald Tait, Archbishop of Canterbury*, Bibliolife.

involved with reconstructing contemporary schools.³³ The school histories consulted were most frequently written by those with a direct involvement with the school concerned, whether as past students or current or past members of staff. Although sometimes overly solicitous of the school's reputation, they throw light on contemporary concerns and preoccupations and how these have shifted over time. More recently, professional historians have been employed to carry out this often arduous archival work, and while these works remain necessarily subject to the school's own editing, their authors contribute both a high level of accuracy and a greater degree of impartiality.³⁴

The majority of these volumes are only peripherally concerned with the approach to school building undertaken by the schools they chronicle,³⁵ though in some instances (David Newsome's incisive history of Wellington College, for example), they offer considerable insight into the choice of site, architect and design.³⁶ One significant weakness of this literature as a whole is its failure to contextualise developments beyond the individual school examined.

³³ Haig Brown, W., 1879, *Charterhouse Past and Present*, Godalming: H. Stedman. This volume, for example, was written by the headmaster of the time of the school's removal from London to Surrey in the wake of the Public Schools Act; Blanch, W.H., 1877, *Dulwich College and Edward Alleyn, A Short History of the Foundation of God's Gift College at Dulwich, together with a memoir of the Founder*, London: E.W. Allen; Parkin, G.R., 2nd edition, abridged, 1900, *Edward Thring, Headmaster of Uppingham, Life, Diary and Letters*, London: Macmillan & Co Ltd.

³⁴ Examples include: Hinde, T. A., 1995a, *A Great Day School in London, A History of King's College School*, London: James & James; Watson, N., 1995, *Latymer Upper School, A History of the School and its Foundation*, London: James & James; Watson, N., 2007, *A Tradition for Freedom, The Story of University College School*, London: James & James; Watson, N., 2015, *MGS at 500*, London: Third Millennium Publishing.

³⁵ Jones, M.D.W., 1995, *Brighton College 1845-1995*, Chichester: Phillimore; Douglas-Smith, A.E., 1937/1965, *City of London School*, Oxford: Basil Blackwell; Trafford, C., ed., 2009, *'The Best School of All', 150 years of Clifton College*, London: Clifton College and Third Millennium Publishing Ltd; Hodges, S., 1981, *God's Gift, A Living History of Dulwich College*, London: Heinemann Educational Books Ltd; Draper, F.W.M., 1962, *Four Centuries of Merchant Taylors' School 1561-1961*, London: Oxford University Press.

³⁶ Newsome, D., 1959, *A History of Wellington College, 1859-1959*, London: John Murray; Anon., 1967, *King's College School, 1829-1967*, Truro: Netherton & Worth; Hinde, T., 1995b, *Carpenter's Children, The Story of the City of London School*, London: James & James.

In relation to this thesis, the literature pertaining to three schools is of particular relevance: Rugby School,³⁷ which Frederick William Walker, the headmaster at the time of the St Paul's rebuild, attended during the 1840s;³⁸ Manchester Grammar School,³⁹ the school he headed immediately prior to his appointment at St Paul's;⁴⁰ and St Paul's School itself.

Rugby in the Arnold and immediately post-Arnold years is widely considered to have been the most influential secondary school of the 19th century and has attracted a substantial historiography both for the school⁴¹ and for Thomas Arnold, the headmaster who brought it national renown.⁴² These works, which delineate the values presented to Walker in his own secondary education, are of note in positioning Walker within this world.

For 17 years prior to his appointment as head of St Paul's,⁴³ Walker was head of Manchester Grammar School (like St Paul's, a 16th-century endowed grammar school), where, I argue, he developed many of the ideas he was later to apply to the

³⁷ Rouse, W.H.D., 1898, *A History of Rugby School*, London: Duckworth & Co; Hope Simpson, J. B., 1967, *Rugby Since Arnold: A History of Rugby School from 1842*, London: Macmillan St Martin's Press.

³⁸ Cholmeley, R.F. (1912 supplement), *Walker, Frederick William*, *Oxford Dictionary of National Biography*, Oxford: Oxford University Press. *Rugby School Register*. Walker was registered at the school in August 1845.

³⁹ Manchester Grammar School (hereafter, MGS) (Mumford, A. A., 1919, *The Manchester Grammar School 1515-1915*, London: Longmans, Green and Co; Graham, J.A. and Phythian, B.A., 1965, *The Manchester Grammar School*, Manchester University Press; Bentley, J., 1990, *Dare to be Wise: A History of the Manchester Grammar School*, London: Third Millennium Publishing; Watson (2015).

⁴⁰ *ibid*.

⁴¹ The influence of Arnold's Rugby is explored at length by Mack (1938, 1941); Simon (1960/1966); Newsome (1961); Bamford (1967, 1975); Honey (1977).

⁴² Arnold's impact on education has received widespread analysis, starting with the influential hagiographic volume produced by his former pupil Arthur Stanley (Stanley, A.P., 1844/1910, *The Life and Correspondence of Thomas Arnold, D.D*, New York: Charles Scribner's Sons), shortly after his death, and continuing to the present day.

⁴³ Mead, A.H. (2004), '*Walker, Frederick William (1830–1910)*', *Oxford Dictionary of National Biography*, Oxford: Oxford University Press. Walker was High Master 1859-1877.

new school building. MGS has been documented in a various school histories,⁴⁴ which provide the context for the evolution of Walker's ideas about school building and a rationale for his perspective on curriculum and infrastructure.

St Paul's itself has been the beneficiary of a number of authoritative histories. The two most substantial works⁴⁵ related to the period in question are: Sir Michael McDonnell's *A History of St Paul's School*⁴⁶ and Hugh Mead's *A Miraculous Draught of Fishes, A History of St Paul's School 1509-1990*.⁴⁷ Both contain several chapters on 19th-century reform and offer an account of the curricular development carried out under Walker,⁴⁸ a description of the new buildings, and an analysis of the school's conflict with the Charity Commissioners concerning the development of the scheme under which the school was rebuilt after the Endowed Schools Act.

Michael McDonnell⁴⁹ wrote his account just a few years after he left the school,⁵⁰ and, in this respect, his work may be considered both a primary and secondary source. He provides a spirited account of the school's (essentially class) struggle to free itself from the constraints of the Charity Commissioners and retain its identity as a leading public school.⁵¹ Hugh Mead, a long-serving head of the school's history

⁴⁴ Mumford (1919); Graham and Phythian (1965); Bentley (1990); Watson (2015). Of these, Mumford's is the most detailed.

⁴⁵ Picciotto, C.M. (1939), *St Paul's*, London and Glasgow: Blackie & Son Ltd. A further history by Cyril Picciotto, who attended the school under Walker, largely relies on earlier work.

⁴⁶ McDonnell (1909).

⁴⁷ Mead (1990).

⁴⁸ McDonnell (1909), pp.379-453, Chapters XX-XXIII; Mead (1990), pp. 40-91, Chapters V-VII.

⁴⁹ *The Times*, Saturday, 14th April, 1956, Obituary. Sir Michael McDonnell, KBE (1882-1956), a foundation scholar under Walker, was Chief Justice of Palestine from 1927-37. He also compiled the *Registers of St Paul's School, 1508-1748*, (1977), London/ Bath, Privately Printed for the Governors and *The Annals of St Paul's School* (1959), Privately Printed for the Governors, both of which were published posthumously.

⁵⁰ Gardiner, R.B. (1906), *The Admissions Registers of St Paul's School from 1876 to 1905*, London: George Bell and Sons. McDonnell's history was written just eight years after he left the school in the Science VIII in 1901, to study first medicine, then law at Cambridge.

⁵¹ McDonnell (1909), pp.412-425.

department during the 1960s and later the school chaplain,⁵² wrote his history at a time when ‘the values of a liberal education’ were having ‘to compete in a rather chilly market-place with those of an extended management training course’.⁵³ Both writers filter their description of the Waterhouse school buildings through the prism of their concerns.⁵⁴ In addition to these full histories, a more focused work ‘*St Paul’s School in West Kensington 1884-1968, a Brief Account of the Buildings and Site*’,⁵⁵ by A.N.G. Richards, a former librarian at the school, offers a well-illustrated room-by-room photographic record of the ways in which Waterhouse’s building was used during the years after its construction.

A number of those closely involved with the decisions taken about the rebuilding of St Paul’s (Lord Selborne,⁵⁶ Benjamin Jowett,⁵⁷ Frederick William Walker,⁵⁸ Alfred Waterhouse⁵⁹) were also involved with university reform both at Oxford and Cambridge⁶⁰ (itself considered to have had a considerable impact on the reform of

⁵² Hugh Mead taught at the school from 1966, where he spent time as the head of History, librarian and archivist, chaplain and Head of Religious Studies. He was also Deputy Priest in Ordinary to the Queen.

⁵³ *ibid.*, p.125.

⁵⁴ McDonnell (1909), pp.429-441. McDonnell’s history, for example, largely concerns itself with the decoration commemorating the school’s illustrious history.

⁵⁵ Richards, A.N.G. (1968), *St Paul’s School in West Kensington 1884-1968, a brief account of the buildings and site*, Privately Printed.

⁵⁶ Ward, W.H. (1965), pp.256-7, *Victorian Oxford*, London: Frank Cass & Co. Ltd. Lord Selborne, chair of governors during the negotiations with the Charity Commissioners and ultimately responsible for way the school was to operate after the rebuild, was also chair of the last reforming University Commission.

⁵⁷ Faber, G. (1957), p.353, *Jowett, a Portrait with a Background*, London: Faber & Faber. During the 1850s, Benjamin Jowett, tutor at and later Master of Balliol College, spearheaded a period of social and curricular reform at Oxford. Jowett, a champion of both Walker and Alfred Waterhouse, had been a pupil at St Paul’s and, as both an old boy and influential public figure, was invited to give his support and guidance to the school in the period in question. Jowett also had a long association with Roundell Palmer.

⁵⁸ Mead (2004). The headmaster Frederick William Walker spent most of the 1850s at Oxford, as an undergraduate, postgraduate, philosophy tutor and fellow.

⁵⁹ Cunningham and Waterhouse (1992), pp.63-76, *Alfred Waterhouse 1830-1905, Biography of a Practice*, Oxford: Clarendon Press. Waterhouse designed new buildings resulting from reform at both Oxford and Cambridge.

⁶⁰ This sought to expand the university from its narrow base as a training ground for Anglican clergy to include people of all creeds and classes, making tutorial teaching, inter-collegiate lecturing and written examination a means to build better scholars and, ultimately, better-qualified professionals. The trajectory has been traced in both specialist and more general works, including: Tillyard, A.I. (1913), *A History of University Reform from*

the public schools) and elsewhere. Where available, biographical sources were consulted for these figures to throw light on their networks and their wider role in education. In this regard, Colin Cunningham and Prudence Waterhouse's biographical monograph on Alfred Waterhouse⁶¹ is particularly valuable, charting the architect's contributions to Balliol College, Oxford, where Benjamin Jowett became an early patron,⁶² his defining role in the new universities in the north, and his professional relationship with Lord Selborne, who the authors consider instrumental in Waterhouse's appointment at St Paul's.⁶³

Literature relating to the evolution of the curriculum

The building designed for St Paul's school was an expression of a radically different approach to the curriculum than the one pursued prior to the move, and this evolution had to be understood within the context of a wider conversation about the curriculum. Contemporary debate on the secondary-school curriculum centred on the extent to which schools for the middle classes should move from an exclusively or predominantly classical curriculum representative of a 'liberal education', in which the chief subjects studied were Latin and Greek, to a 'Modern' curriculum, which incorporated knowledge applicable to working life, such as science, modern languages, social science and art. At this period, too, the physical wellbeing of pupils

1800 AD to the Present Time, Cambridge: W. Heffer and Sons Ltd; Ward (1965); Rothblatt, S. (1968), *The Revolution of the Dons, Cambridge and Society in Victorian England*, London: Faber and Faber Ltd.; Green, V.H.H. (1974), *A History of Oxford University*, London: B.T. Batsford; Sanderson, M. ed. (1975), *The Universities in the Nineteenth Century*, London: Routledge & Kegan Paul; Brock, M.G. and Curthoys, M.C. eds. (2000), *The History of Oxford Vol. VII, Nineteenth-Century Oxford, Part 11*, Oxford: Clarendon Press.

⁶¹ Cunningham and Waterhouse (1992).

⁶² *ibid.*, pp.63-5.

⁶³ *ibid.*, p.23.

began to be a significant concern and 'Physical Education' became a priority for educators at all levels of society.

Sociologists of education have emphasised the way in which the types of knowledge valued in the education system reflect social structures, tracing the historical development of different subjects in the school curriculum to highlight their social and political characteristics.⁶⁴ In relationship to the design decisions taken at St Paul's, the curricular balance between the 'Classical side' and the 'Modern side' is of particular significance as this thesis argues that the transfer of St Paul's from the remit of the Clarendon Commissioners to the those tasked with implementing the Endowed Schools Act, resulted in it becoming the first major secondary school in England to fully synthesise these two strands of the curriculum in a single building, so creating a new type of secondary school.

The evolution of curricular balance has been traced in the literature about the Commissions, in works on the public school,⁶⁵ in works on individual schools, and in biographies of influential heads. The literature also explores the rapid development of science and technical education in higher-education institutions directly related to 'First-Grade' secondary-schools such as St Paul's, and studies of London University,⁶⁶ Manchester University (Owens College)⁶⁷ and the City and Guilds

⁶⁴ Young, M.F.D. (1971), *Knowledge and Control, New Directions in the Sociology of Education*, London: Collier Macmillan; Becher, T. and Maclure, S. (1978), *The Politics of Curriculum Change*, London: Hutchinson Goodson, I.F. (1983), *School Subjects and Curriculum Change*, London and Canberra: Croom Helm; Goodson, I.F. and Ball, S. (1984), *The Curriculum: Histories and Ethnographies of School Subjects*, London: Falmer Press.

⁶⁵ Simon (1975).

⁶⁶ Harte, N. (1986), *The University of London 1836-1986*, London: Athlone Press; Rothblatt, S. (1988), 'London A Metropolitan University?' in *The University and The City, from Medieval Origins to the Present*, ed. Bender, T., Oxford: Oxford University Press; Floud, R. and Glynn, S. (1998), *London Higher: The Establishment of Higher Education in London*, London: The Athlone Press; Wilson, F.M.G. (2004), *The University of London 1858-1900, The Politics of Senate and Convocation*, Woodbridge and Rochester NY: The Boydell Press.

⁶⁷ Thompson, J. (1886), *The Owens College: Its Foundation and Growth; and its Connection with The Victoria University Manchester*. Manchester: J.E. Cornish; Charlton, H.B. (1951), *Portrait of A University, 1851-1951*,

Institution⁶⁸ demonstrate the rapidly shifting understanding of advanced scientific instruction during this period. More general works on intellectual life (such as R.H. Kargon's *Science in Victorian Manchester, Enterprise and Expertise*)⁶⁹ clarify the increasing requirement for scientific knowledge in numerous middle-class careers.

At this time, drawing, too, became an exam pre-requisite for many professions and two literatures on art education were consulted. One strand concentrates primarily on the government-driven initiatives led by Sir Henry Cole intended to create an artisan class sufficiently skilled to compete with the well-trained workforce of rival nations such as Germany, France and the US.⁷⁰ The other deals with the influence of John Ruskin⁷¹ on the approach to art education taken at the public schools. Both are relevant.

On-site provision for sport, expensive in terms of land and buildings, is generally considered to be a defining feature of the late 19th-century public school, but the literature relating to physical education is again split, one element specifically addressing the approach taken by the boarding public schools,⁷² the other the

Manchester: Manchester University Press; Jones, D.R. (1988), *The Origins of the Civic Universities, Manchester, Leeds and Liverpool*, London: Routledge.

⁶⁸ Lang, J. (1978), *City and Guilds of London Institute, Centenary 1878-1978*, London: City and Guilds of London Institute; Whitworth, A. ed. (1985), *A Centenary History, A History of the City and Guilds College, 1885 to 1985*, London: Imperial College of Science and Technology.

⁶⁹ Kargon, R.H. (1977), *Science in Victorian Manchester, Enterprise and Expertise*, Baltimore and London: John Hopkins University.

⁷⁰ MacDonald, S. (1970), *The History and Philosophy of Art Education*, London: London University Press.

⁷¹ Ruskin has attracted an extensive historiography, but Sara Atwood's analysis in *Ruskin's Educational Ideals*, (2011, London: Ashgate) is the first modern study to concentrate on Ruskin's educational theory and practice, offering valuable insight into an approach calibrated according to class and gender. Efland, A.D. (1990), *A History of Art Education, Intellectual and Social Currents in Teaching the Visual Arts*, New York and London: Teachers College, Columbia University. Arthur Efland provides further insight into Ruskin's international reach; while Nikolaus Pevsner (Pevsner, N., 1940, *Academies of Art, Past and Present*, Cambridge: Cambridge University Press) offers a broader social background to the study of fine art during this period, when the profession of 'fine artist' was one largely acceptable to the public-school-educated middle class.

⁷² Compulsory competitive team games and the cult of 'athleticism' have been extensively explored both in the public-school literature and in histories of individual schools. Newsome (1961). Newsome has tracked the transformation from Thomas Arnold's 1830s' worldview of '*Godliness and Good Learning*', in which sport

importance of physical education to schools of all types.⁷³ Both strands are applicable to St Paul's.

Public examinations and 19th-century education

St Paul's School in its new building in West Kensington is widely acknowledged to have developed into a school renowned for its success in public examinations, particularly as this applied to winning scholarships to Oxford and Cambridge. In this thesis, I argue that the design and use of the school emphasised and encouraged this aspect of the education provided.

The literature relating to the development of examinations in 19th-century England has explored the promotion of a more competitive culture characterised by achievement and qualifications. By the mid-century, competitive examinations, seen as an antidote to corruption, had come to replace patronage as the chief means of recruitment both to schools and to many posts in the professions and public services. The rapid rise of 'professionalism', too, meant that exams took on greater significance, reflecting the aspirations of the increasingly influential commercial, financial and industrial middle class (i.e. the class that attended St Paul's).

played a peripheral role, to the pervasive mood of muscularity and philistinism in the latter half of the century; Bamford (1967) offers an analysis of the rise of the games cult; Honey (1977) expands on the part team games played in the formation of a system; while Wilkinson (1964) explores how games were used by schools to promote leadership. Mangan (1975), (1986), (1981/2000). James Mangan was the first to draw on sociological and anthropological interpretations to demonstrate that public-school sport, initially organised and funded by pupils, was gradually colonised by staff as a means of enforcing discipline and establishing 'esprit de corps'

⁷³ The relative educational merit of team sports and gymnastics was explored by contemporary commentators, such as Matthew Arnold (Arnold, 1864/1892, p.14) and E.R. Robson (Robson, 1874/1982, pp.244-262), and the increasing popularity of formally taught gymnastics at all levels of education has been examined by Bruce Haley (Haley, B., 1978, *The Healthy Body in Victorian Culture*, Cambridge, Massachusetts: Harvard University Press). Swimming, which by the 20th century was widely recognised as a school subject, was slower to develop. Christopher Love (Love, C., 2008, *A Social History of Swimming in England, 1800-1918*, London and New York: Routledge Taylor and Francis Group) has demonstrated how, initially, it did so largely along class lines.

Brereton,⁷⁴ Roach,⁷⁵ Montgomery⁷⁶ and Macleod⁷⁷ have chronicled the history of the arrival and impact of exams, while Harold Perkin⁷⁸ has tracked the growth in professional society, but, while William Whyte provides an insightful analysis of the background, form and style of the Examination Schools at Oxford University (1876-1882),⁷⁹ elsewhere little has been written about the architectural expression of the exam culture. This is a subject I address in the use made of the Assembly Hall and corridors at St Paul's.

School architecture and the architecture of Alfred Waterhouse, architect of St Paul's

This thesis set out to explore the role played by architecture and architects in school building, specifically in relationship to St Paul's and has, therefore, relied on literature examining the development of 19th-century secondary-school buildings, and works related to the career of the architect, Alfred Waterhouse.

Traditional art-historical studies largely concentrate on 'great' names and major public buildings. Though St Paul's was designed by one of the leading architects of the period, school architecture has generally been considered a minor form, of lesser interest than university and other public buildings. Recent years, however, have seen a growth of interest in school architecture, less amongst architectural historians

⁷⁴ Brereton, J.L. (1944), *The Case for Examinations*, Cambridge: University Press.

⁷⁵ Roach, J. (1971), *Public Examinations in England, 1850-1900*, Cambridge: University Press.

⁷⁶ Montgomery, R.J. (1965), *Examinations – An Account of their Evolution as Administrative Devices in England*, London: Longman, Green & Co; (1978), *A New Examination of Examinations*, London: Routledge & Kegan Paul.

⁷⁷ Macleod, R. (ed.) (1982), *Days of Judgement*, Driffield: Nafferton Books.

⁷⁸ Perkin, H. (1989/1990), *The Rise in Professional Society*, London and New York: Routledge.

⁷⁹ Whyte, W. (2001), 'Rooms for the Torture and Shame of Scholars': *The New Examination Schools and the Architecture of Reform*, *Oxoniensia* 66, pp.85-124.

examining stylistic developments than amongst social historians and historians of education exploring sociological change and material culture.

Malcolm Seaborne's *The English School, Its Architecture and Organisation, Vol I, 1370-1870*⁸⁰ and Malcolm Seaborne and Roy Lowe's *The English School Its Architecture and Organisation, Vol. II, 1870-1970*⁸¹ remain essential works about 19th-century secondary-school architecture, providing erudite analysis of the evolution of the form and function of English schools during this period. Though the rebuilding of St Paul's is touched on in Vol. II (without mentioning Waterhouse),⁸² and Walker's decisions at Manchester are also briefly examined,⁸³ inevitably, such wide-ranging texts provide little detail on the policy and pedagogic debates which drove change at individual schools.

The social historian of architecture William Whyte has explored the architectural evolution of 19th-century public schools, suggesting that these schools, by employing a narrow roster of architects, created a broadly similar, identifying style, which stressed their identity and importance.⁸⁴ Neither Waterhouse nor St Paul's are mentioned in this paper.

These authors have largely followed the agenda of the public-school literature, placing greater emphasis on architectural developments in leading boarding public

⁸⁰ Seaborne (1971).

⁸¹ Seaborne and Lowe (1977).

⁸² *ibid.*, p.46.

⁸³ Seaborne (1971), p.262.

⁸⁴ Whyte (2003).

schools than on developments in the large urban day schools.⁸⁵ In this thesis, I argue that the architecture of the latter became an equally, if not more, influential typology, and I have, therefore, turned for more detailed insight to literature relating to relevant schools (City of London School,⁸⁶ Merchant Taylors',⁸⁷ Christ's Hospital,⁸⁸ Manchester Grammar School⁸⁹).

Alfred Waterhouse, the architect of the new St Paul's building, was one of the most celebrated architects of the 19th century⁹⁰ and his public works, including St Paul's, received extensive coverage in the architectural press of the day and in critical works about contemporary architecture.⁹¹ Despite his undoubted status amongst his contemporaries, however, Waterhouse's work fell out of fashion towards the end of his life and modern commentators have shown more limited interest in his achievements, largely confining themselves to passing references to salient works in standard surveys of the period.⁹²

⁸⁵ Seaborne (1971), pp.267-8. Acknowledgement, however, is made in Vol. I of the new building at Dulwich College of 1870, and, in Vol.II (1977), p.43, of the new designs for City of London School.

⁸⁶ Douglas-Smith (1937/1965); Hinde (1995b).

⁸⁷ Draper (1962).

⁸⁸ Seaman (1977).

⁸⁹ Mumford (1919); Graham and Phythian (1965); Benson (1990); Watson (2015).

⁹⁰ Cunningham and Waterhouse (1992), p.200.

⁹¹ Eastlake, C.L. (1872/1975 with an Introduction by Gowans, A.), *A History of the Gothic Revival*, New York: American Life Foundation.

⁹² Clark, K. (1928/1964), *The Gothic Revival*, Harmondsworth: Penguin Books; Pevsner, N. et al, (1951 et seq.) *The Buildings of England*, Harmondsworth: Penguin Books; Goodhart-Rendel (1953/1989); Hitchcock, H-R. (1958/1969), *Architecture: Nineteenth and Twentieth Centuries*, Pelican History of Art, London: Penguin; Furneaux Jordan, R. (1966), *Victorian Architecture*, Harmondsworth: Pelican Books; Muthesius, S. (1972), *The High Victorian Movement in Architecture 1850-1870*, London: Routledge and Kegan Paul; Dixon, R. and Muthesius, S. (1978), *Victorian Architecture*, London: Thames & Hudson; Crook, J. M. (1987/1989), *The Dilemma of Style, Architectural Ideas from the Picturesque to the Post-Modern*, London: John Murray; Reynolds, D.M. (1992) *Nineteenth-Century Architecture*, Cambridge: Cambridge University Press.

The 1990s monograph on Waterhouse by Colin Cunningham and Prudence Waterhouse⁹³ remains the most substantial resource, providing an invaluable chronology of Waterhouse's career and stylistic development, as well as a catalogue raisonné. His work at St Paul's is touched on only briefly,⁹⁴ but is usefully grouped with his new university buildings in Manchester, Leeds and Liverpool and with the City and Guilds Institute in London.⁹⁵

Beyond this work, other valuable contributions for this thesis include the catalogue of the 1983 solo exhibition at the RIBA,⁹⁶ and Stuart Allen Smith's dedicated studies,⁹⁷ while various essays on his most celebrated buildings (Manchester Town Hall⁹⁸ and the Natural History Museum⁹⁹) and unbuilt commissions such as the Law Courts¹⁰⁰ add further relevant information about his style and technique. Specialist studies of collegiate architecture, which include his designs for Girton College, Cambridge,¹⁰¹ and Owens College, Manchester¹⁰² furnish insight into his role as an innovator in educational buildings.

⁹³ Cunningham and Waterhouse (1992).

⁹⁴ *ibid.*, p.126.

⁹⁵ *ibid.*, pp.124-135.

⁹⁶ Maltby, S., Macdonald, S., and Cunningham, C. (1983), *Alfred Waterhouse 1830-1905*, London: RIBA Heinz Gallery.

⁹⁷ Smith, S.A. (1970-71), *Alfred Waterhouse*, unpublished doctoral thesis, London: Courtauld Institute, University of London; Smith, S. (1976), *Alfred Waterhouse, Civic Grandeur*, in Fawcett, J. (ed.), *Seven Victorian Architects*, London: Thames & Hudson.

⁹⁸ Jenkins, F.I., 'The Making of a Municipal Palace', *Country Life*, 16th February, 1967; Archer, J.H.G. (1985), 'A Classic of its Age' in *Art and Architecture in Victorian Manchester*, Manchester: Manchester University Press; Pevsner, N. (1969), *The Buildings of England, South Lancashire*, Harmondsworth: Penguin Books.

⁹⁹ Olley, J. and Wilson, C. (1985), *The Natural History Museum* in Cruickshank, D. (ed.), *Masters of Building, Timeless Architecture:1*, London: The Architectural Press; Girouard, M. (1981), *Alfred Waterhouse and the Natural History Museum*, London: Natural History Museum publications; Yanni (1999); Halliday, S. (2003), *Making the Metropolis, Creators of Victoria's London*, Butler & Tanner.

¹⁰⁰ Summerson, J. (1970), *A Victorian Competition: The Royal Courts of Justice in Victorian Architecture, Four Studies in Evaluation*, New York and London: Columbia University Press.

¹⁰¹ Waterhouse, P. (1990), *A Victorian Monument, the Building of Girton College*, Cambridge: Girton College; Vickery (1999).

¹⁰² Whyte (2015/2016).

Literature related to architectural patronage in the 19th century

As the architectural historian Bruce Allsopp has noted, ‘architecture is the art and science of building man’s environment and inevitably there is a dialogue between what the architect can conceive and what men will accept and pay for. The architect-client partnership is an indissoluble bond.’¹⁰³ In this thesis, I have explored this bond, arguing that, at St Paul’s, the relationship was formed with a number of actors (the school governors, the head, and the Charity Commissioners, acting as agents of government policy)¹⁰⁴ who may, collectively, be called the ‘client’.

Working from the perspective of these decision-makers, I have explored: the rationale for the choice of architect; the way design decisions about the build were taken (including budgetary considerations, the siting of the school, the choice of style, the planning priorities, the choice of ornament); and perceptions of the effectiveness of the completed design. These issues are only touched on in the existing literature as it relates to school-building design.

The literature about 19th-century patronage concentrates largely on major public works other than schools, but provides an understanding of how architects were chosen and briefs developed elsewhere. Mark Girouard’s celebrated work on the country house¹⁰⁵ was among the first to harness social and political history to interpret buildings in terms of the developing fortunes of the landed elite, and

¹⁰³ Allsopp, B. (1970), p.21, *The Study of Architectural History*, London: Studio Vista.

¹⁰⁴ See Ch.5 and 6.

¹⁰⁵ Girouard (1971).

Girouard is illuminating both on how architects were selected¹⁰⁶ and on the tendency of individual architects to work with clients of a particular political persuasion.¹⁰⁷ Joseph Mordaunt Crook further develops this theme in the *Rise of the Nouveaux Riches*,¹⁰⁸ while William Whyte explores its application to the public schools,¹⁰⁹ and both Girouard¹¹⁰ and Deborah Weiner consider its relevance to newly emergent institutions of reform and philanthropy, such as elementary schools.¹¹¹ Roger Harper offers a useful analysis of 19th-century architectural competitions,¹¹² one of the most popular (and contentious) means to appoint architects during this period, while Frank Jenkins' more general work on patronage¹¹³ traces the transition from individual to corporate decision making. Andrew Saint¹¹⁴ explores the growing division between 'art architects' and 'professional' architects and the impetus given to the latter by the number and complexity of new building types.

Literature on interior design and the materiality of schools

In this thesis, I have also considered the interior design of the Waterhouse building. In doing so, I have relied on developments in material-culture studies, a methodological approach which examines 'the materiality of schools' and investigates the way in which objects in school are given meaning. Recent studies by

¹⁰⁶ *ibid.* p.12. 'Through personal knowledge or recommendation, advertisement... by exhibiting at the Royal Academy, or being featured in the architectural press.'

¹⁰⁷ *ibid.*, p.13.

¹⁰⁸ Crook (1999).

¹⁰⁹ Whyte (2003).

¹¹⁰ Girouard (1977).

¹¹¹ Weiner (1994).

¹¹² Harper (1983). Though Waterhouse competed successfully in such competitions, at St Paul's he was selected by committee (in itself, significant). This work, however, provides insight into the process of selection at relevant schools, such as City of London.

¹¹³ Jenkins, F. (1961), *Architect and Patron, a Survey of Professional Relations and Practice in England from the Sixteenth Century to the Present Day*, London: Oxford University Press.

¹¹⁴ Saint, A. (1983), *The Image of the Architect*, New Haven and London: Yale University Press.

Catherine Burke,¹¹⁵ Martin Lawn,¹¹⁶ Ian Grosvenor,¹¹⁷ and Antonio Viñao¹¹⁸ have explored how the location and layout of spaces dedicated to a certain function reflect an institution's perception of their importance. These authors have also looked at the way physical factors such as light (its nature, quantity, quality and direction) have been treated in school design and pedagogy, and analysed how the material structures of schools act as a record of educational practice.¹¹⁹ I have kept their approach in mind in my chapters on the design of the new St Paul's building.

CONCLUSION

The secondary sources have allowed me to contextualise the decisions taken at St Paul's, providing an insight into the perspectives from which the main decision-makers acted, and how and why their choices may have differed from decisions made about school-building design elsewhere.

¹¹⁵ Burke and Grosvenor (2008); Burke, C. (2005), pp.125-143, *Light: metaphor and materiality in the history of schooling* in Lawn, M. and Grosvenor I. (eds.), *Materialities of Schooling*, Oxford: Symposium Books.

¹¹⁶ Lawn, M. (2005), pp.145-163. *A Pedagogy for the Public; the place of objects, observation, mechanical production and cupboards*, in Lawn, M. and Grosvenor I. (eds.) (2005).

¹¹⁷ Grosvenor, I. (2005), pp.163- 176, *'Pleasing to the Eye and at the Same Time Useful in Purpose': a historical exploration of education exhibitions*, in Lawn, M. and Grosvenor I. (eds.) (2005).

¹¹⁸ Viñao, A. (2005), pp.47-70, *The School Head's Office as Territory and Place: location and physical layout in the first Spanish graded schools* in Lawn, M. and Grosvenor I. (eds.) (2005).

¹¹⁹ Benito, A.E. (2001), *The School in the City. School Architecture as Discourse and as Text*, paper presented at the International Standing Conference for the History of Education.

CHAPTER 4: THE EDUCATIONAL AND ARCHITECTURAL BACKGROUND IN ENGLISH SECONDARY EDUCATION, 1850-1880

INTRODUCTION

In order to contextualise the design decisions taken at St Paul's, this chapter explores the broader landscape in which the rebuilding of the school took place, examining, in turn, at: the role played by legislation in the design and siting of secondary schools in the mid-century; the impact of curriculum change on their organisation, reflected in their architecture; changing ideas about architecture's role in education amongst those charged with creating new schools; and the influence of ideas about secondary-school architecture from abroad.

To demonstrate the complex, multi-stranded and ill-defined nature of secondary education, I begin the chapter with a summary of the range of secondary-school categories available in the years preceding the rebuilding of St Paul's, and also briefly detail the debates about the architecture of elementary-schools taking place at the time, and its influence on ideas about secondary-school design. I then explore some of the main themes that concerned contemporaries in relation to school buildings, analysing these through: the expressed views of the two education Commissions of the 1860s which dealt with secondary education (the Clarendon Commission¹ and the Schools Inquiry Commission²); the educational philosophy of

¹ Shroobree (1988), p.105. Established in 1861, it reported in 1864.

² Aldrich (1982), p.47. The Schools Inquiry Commission, also widely known as the Taunton Commission (after its chair, Lord Taunton) or Endowed Schools Commission, was set up in 1864. Its report was published in 1868.

Edward Thring, the first chairman of the Headmasters' Conference (HMC),³ the confederation of secondary-school heads founded in response to the Schools Inquiry Commission⁴; and, finally, through the writing of the Chief Architect of the London School Board, E.R. Robson, an influential commentator on both elementary and secondary-school building design. These concerns related particularly to the distribution of provision in relation to population, pupil health and wellbeing, and whether the design of buildings was suitably adapted to new curricula intended to reflect the needs of a society experiencing rapid urbanisation and industrialisation while retaining sharp class distinctions.

From this base, I proceed to investigate specific elements of secondary-school design as it developed in the second half of the century, examining, in turn, the evolution of: the classroom; the Assembly Hall; and the facilities considered necessary for science, art and sport. As this chapter relates to the decisions taken at St Paul's, I concentrate on schools most likely to have had a direct impact on decisions taken here, focussing on school design which featured prominently in the architectural and national press and on new buildings at schools which would have been considered directly relevant to those responsible for rebuilding St Paul's.

SECONDARY SCHOOL PROVISION IN THE MID-CENTURY

The early years of the 19th century saw the rapid development of the commercial and industrial middle class, accompanied by a growing belief that the middle classes required a secondary education specifically tailored to the requirements of an

³ Percival (1969), p.38.

⁴ *ibid.*, p.1.

increasingly professionalised society.⁵ During this period, it became widely acknowledged that, while England had a small number of schools which served the needs of a rarefied elite,⁶ there remained an acute shortage of well-funded, well-regulated secondary schools 'for those large classes of English society which are comprised between the humblest and the very highest'.⁷ At this juncture, the secondary-education system was characterised by a wide diversity of institutions and 'a chronic lack of integration between the various parts'.⁸

The available provision fell into the following categories:

The 'Great Schools'

At the pinnacle of the education system were a handful of secondary schools known as the 'Great Schools'. This term was imprecise, but can generally be taken to mean the schools that, at one time or another, had educated the sons of the aristocracy and gentry,⁹ in particular the nine schools investigated by the Clarendon Commission between 1861 and 4.¹⁰ All the Clarendon schools were 'endowed schools' (i.e. schools established and made viable by means of a charitable

⁵ Simon (1960/1966), p.302. By the 1840s, the introduction of competitive entry to the Civil Service and reform of the army placed a new premium on education for the middle class.

⁶ Arnold (1864), p.9, p.63.

⁷ Schools Inquiry Commission, *Report of the Commissioners (to inquire into the education given in schools not comprised within Her Majesty's two former commissions...)* (1868), HMSO. From the rubric of the Commission's report.

⁸ Green (1990/1992), p.208.

⁹ Simon (1960/1966), p.300.

¹⁰ Maclure (1965/1986), p.83; Shrosbree (1988), p.1, p.2. The schools investigated were: Eton, Harrow, Winchester, Westminster, Rugby, Charterhouse, Merchant Taylors', Shrewsbury and St Paul's. These schools educated only 2,708 pupils, and this list of 'Great Schools' was not considered definitive. Howard Staunton, for example, in his 1865 survey of *'The Great Schools of England'* covered other wealthy endowed schools, successful proprietary schools and Wellington College, established in 1859 to commemorate the Duke of Wellington.

endowment or trust) and all would have been described by contemporaries as ‘public schools’,¹¹ but beyond these two unifying factors, there was no clear link between them.¹² Ultimately, their selection seems to have been made solely on grounds of social status (or, as Colin Shrosbree puts it, ‘The Clarendon schools were... those from which Members of Parliament, Cabinet Ministers and members of the Commission themselves came’).¹³ At this juncture, there was no doubt that St Paul’s School, with its large endowment and national reputation, should be included in their number.

Though the Commission inspected nine schools, Eton was the chief focus of their investigation.¹⁴ Long established as the leading school of the Tory party, the Church of England and the aristocracy,¹⁵ Eton had, from early in the century, come under radical attack¹⁶ and, as pressure to modernise education grew, concerns about its administrative mismanagement, pastoral care and curricular stagnation¹⁷ intensified.

¹¹ Coleridge (1860), p.13. See Ch.1, p.22-3, n.35.

¹² Simon (1960/1966), pp.300-302. Winchester and Eton, founded, in the 14th and 15th century respectively, by wealthy and, in the latter case, a royal patron, had always been considered ‘Great Schools’. Harrow, founded by a 16th-century yeoman for inhabitants of the parish, had, by the late 18th century, largely become an upper-class boarding school favoured by the Whig party. St Paul’s (founded 1508-9), Westminster (founded 1560), Merchant Taylors’ (founded 1561), and Charterhouse (founded 1619) had, from their London base, all gained a national reputation. Shrewsbury (founded 1552), which originated as a borough school, had early on become a centre for the education of the nobility and gentry of the West Country. Rugby founded in 1567 by Lawrence Sheriff, a grocer, was intended as a free grammar school for local boys. Its reputation flourished from the late 18th century, and, under Thomas Arnold, it gained national prominence as a boarding school, offering, what Simon describes as: a ‘prototype of the kind of school desired by the Victorian upper-middle class.’

¹³ Shrosbree (1988), p.2. Members of the Commission had attended Eton, Winchester, Westminster and Rugby.

¹⁴ Arnold (1864), p.6.

¹⁵ Simon (1960/1966), p.300, pp.99-100, p.302, p.303, p.101.

¹⁶ *ibid.*, pp.99-100.

¹⁷ *ibid.*, p.309. In evidence to the CC, university tutors compared the Clarendon schools unfavourably with newer foundations, claiming most boys from these schools were ‘almost incredibly ignorant’ of English, modern languages, mathematics, natural history and modern history.

The Clarendon Commissioners, though in many respects conservative,¹⁸ were to carry out searching examinations,¹⁹ and the report they produced²⁰ and the Acts that followed this report led to extensive reform.²¹ The Commission, however, operated on the premise that, if the aristocracy were to maintain its position of superiority, the task was to modernise and improve the schools they attended, while retaining their exclusivity.²² The Clarendon report, therefore, reflected the schools in a pleasing light, if not academically (and they were scathing about this aspect of the provision),²³ then in terms of their capacity to instil the cultural and social values, which were felt to be the distinguishing features of a '*public-school education*',²⁴ a perspective made explicit in their much-repeated statement that:

If a youth, after four or five years spent at school, quits it at nineteen, unable to construe an easy bit of Latin or Greek without the help of a dictionary or to write Latin grammatically, almost ignorant of geography and of the history of his own country, unacquainted with any modern language but his own, and hardly competent to write English correctly, to do a simple sum, or stumble through an easy proposition of Euclid, a total stranger to the laws which govern the physical world and to its structure, with an eye and hand unpractised in drawing and without knowing a note of music, with an uncultivated mind and no taste for reading and observation, his intellectual

¹⁸ Mack (1941), pp.27-8.

¹⁹ Simon (1960/ 1966), p.310. This was particularly so at Winchester and Eton, where the Clarendon Commissioners recommended 'a ruthless and complete transformation of governing bodies' so that these should be composed of 'trustees without pecuniary interest'.

²⁰ Maclure (1965/ 1986), p.83.

²¹ Seaborne (1971), p.245.

²² Maxwell, H. (1913), p.269. *The Life and Letters of George William Frederick, Fourth Earl of Clarendon, Vol.11*, London: Edward Arnold. The Earl of Clarendon, who headed the Commission, believed the public schools needed reform because '*their inefficiency placed the upper classes in a state of inferiority to the middle and lower*'. Mack (1941), p.30. Mack argues the CC's primary intention was to preserve the public schools by bringing them up to date.

²³ CC (1864), Vol.1, p.31.

²⁴ *ibid.*, p.56.

education must certainly be accounted a failure, though there may be no fault to be found with his principles, character or manners.

By its selection of schools, the Public Schools Act of 1868 codified the stratification of education along class lines, creating an elite sub-set of schools, with a differentiated curriculum, organisation and buildings.

Endowed 'Grammar' Schools

From the Tudor period, English secondary education had largely been supplied by a network of 'endowed schools', charities primarily established in the 16th and 17th century,²⁵ which provided, free of charge, a school building and the salary of a teacher or teachers.²⁶ Many of these endowments (but by no means all)²⁷ were established as 'grammar' schools, i.e. schools which taught Latin and Greek grammar, enabling those who successfully completed the course of study (and many left long before) to proceed to the universities and thence on to professional careers in the church, the law, or education.

During the 17th and 18th centuries endowed schools had frequently been poorly administered and, by the early 19th century, the schools came under considerable

²⁵ Orme, N. (2006), p.225, p.228, *Mediaeval Schools*, New Haven and London: Yale University Press; Aldrich (1982), p.99.

²⁶ *ibid*, pp.99-100. Generally operating in single-room schoolhouses, they were usually overseen by a single classically-trained teacher, with both the salary of the teacher and the structure of the building maintained out of the endowment. The endowments ranged from the very wealthy (such as St Paul's) to the quite modest.

²⁷ Maclure (1965/1986), p.90. The SIC investigated nearly 2,200 'non-classical' schools devoted 'both by their foundations and by actual use' exclusively to the education of the labouring classes.

scrutiny for financial mismanagement.²⁸ From the late 18th century, too, the restricted curriculum defined in their original statutes began to appear outdated, and some of the richer schools sought legal remedies to alter the statutes to provide a more relevant education.²⁹

Eventually, it became clear that only a general measure could ensure a comprehensive overhaul,³⁰ and, in 1864, the Schools Inquiry Commission³¹ was set up to examine all the schools left unexamined either by the Clarendon Commission or by the Newcastle Commission (which investigated elementary education).³² It was to be the largest and most searching educational investigation of the Victorian era,³³ and, well as the endowed schools, it examined private and proprietary schools, considering how the country's secondary schools might be arranged according to the social background and wishes of middle-class parents. Ultimately, the Act of 1869 dealt only with endowed schools and ignored many of the recommendations put forward in the School Inquiry Commission's report, but it, nonetheless, resulted in the radical reconfiguration of the majority of the country's endowed schools.³⁴

Private Schools

²⁸ Simon, B. (1960/1966), p.95. *Studies in the History of Education 1780-1870*, London: Lawrence & Wishart. In many instances, flagrant abuse was uncovered.

²⁹ *ibid.*, p.103, p.108.

³⁰ *ibid.* p.109.

³¹ Maclure (1965/1986), p.89.

³² *ibid.* p.70. Established in 1858, the Commission was founded: 'To enquire into the present State of Popular Education in England, and to consider and report what Measures, if any, are required for the Extension of sound and cheap elementary instruction to all classes of the people'. It spent three years investigating.

³³ Aldrich (1982), p.106. In 21 volumes, the commission covered 2000 schools which gave elementary instruction and more than 700 grammar schools.

³⁴ Maclure (1965/1986), p.91.

Private schools, schools run by individual owners for personal profit, existed in significant numbers from the 16th century, but proliferated from the late 18th century.³⁵ Often operating on a very small scale,³⁶ many were short lived and poorly run,³⁷ but a few played a significant role in establishing new ways of thinking about the curriculum.³⁸ Used by all strata of the middle class,³⁹ the majority of private day schools prepared boys⁴⁰ for commercial and industrial occupations at a relatively modest cost. Some, however, were set up specifically to provide an education comparable with that available to the upper classes.⁴¹ Many had a denominational association.⁴²

Proprietary Schools

In the 1820s, a new type of secondary school emerged designed to fulfil the demands of the middle classes for a relevant, modern education. These schools, known as 'proprietary schools', represented, as Brian Simon notes: 'a transition from mere seeking out of schools offering a relevant education to the actual founding and

³⁵ *ibid.*, p.90. At the time of the SIC, it was estimated there were more than 10,000 private schools.

³⁶ Seaborne (1971), p.180. Usually in private houses.

³⁷ Simon (1960/1966), p.112, p.114. *Central Society of Education* (1837), pp.59-60, *Education in the United Kingdom*. As one observer commented: 'The schools for the trading and mercantile classes are very frequently mere egastula, to which boys are sent out of the way to be boarded and birched at £20 a year.'

³⁸ Seaborne (1971), p.181. Simon (1960/1966), p.110.

³⁹ *ibid.*, p.180. The better-paid artisans made use of private schools. In Manchester, for example, in 1834, 13,108 children, were to be found in day schools with fees ranging from 3d to 9d a week.

⁴⁰ *ibid.* There were also numerous private girls' schools.

⁴¹ Simon (1960/1966), p.112. In the first half of the century, boys from the upper class or gentry were frequently educated in private schools or at home.

⁴² *ibid.*, p.112.

control of schools of the type desired'.⁴³ Appealing to all religious persuasions,⁴⁴ they were financed by means of joint stock companies, in which groups of like-minded people banded together to establish and administer schools which reflected what they believed was needed.⁴⁵ Proprietary schools were distinguished by their curriculum,⁴⁶ organisation and, frequently by their buildings,⁴⁷ all of which marked them out from the endowed grammar schools and Great Schools. From early on, their pioneering role was acknowledged.⁴⁸

Most of the proprietary schools founded in the 1820s and 30s survived for little more than a decade⁴⁹ but, from the 1840s, a number of successful schools were established along proprietary lines (amongst these, Marlborough College, Cheltenham College, and Rossall).⁵⁰ Both the earlier schools and their successors were viewed positively by the Clarendon Commission and the Schools Inquiry Commission, with the latter holding them up as models of good practice.⁵¹

THE RELEVANCE OF ELEMENTARY EDUCATION

⁴³ *ibid.*, p.115. The first was probably the Liverpool Institute founded in 1825.

⁴⁴ *ibid.*

⁴⁵ *ibid.*, pp.264-4. The *Quarterly Journal of Education* (Vol.1, No 2, April 1831) argued that the proliferation of such schools stemmed from the fact that parents thought it better 'to found a school and make it good, than run the doubtful chance of placing their sons where they learn nothing to the purpose.'

⁴⁶ *ibid.*, pp.115-116. The Proprietary School of Leicester, founded in 1837 by a group of local businessmen, tradesmen and manufacturers, commented in its first report that the school had: 'broken in upon the monastic system of education and substituted natural philosophy, English composition and literature for the monopoly so long held by the dead languages'.

⁴⁷ Seaborne (1971), pp.184-8. The proprietary schools were some of the first to provide separate classrooms.

⁴⁸ Butler, S. (1896), Vol.II, p.96. *Life and Letters of Samuel Butler*, London: John Murray. Samuel Butler, the celebrated headmaster of Clarendon school Shrewsbury, commented: '...the traffic in joint stock company schools...will ultimately ruin the older foundations.'

⁴⁹ Seaborne (1971), p.191.

⁵⁰ *ibid.*, p.246.

⁵¹ SIC (1868), Vol.1, p.314. The Commission commended the proprietary schools for breaking the monopoly of the classics and improving methods of school organisation and building.

The seismic social and economic changes,⁵² which affected English society from that late 18th century, were accompanied by a general concern for the education of the working class⁵³ and the first 40 years of the century saw critical developments in ideas about how, in practical terms, the mass provision of elementary education could be brought about.

To meet the challenge, educators developed new methods of organising schools. Of these, the Quaker Joseph Lancaster and the Anglican clergymen Andrew Bell were the most influential.⁵⁴ In 1808, supporters of Lancaster's approach formed the Royal Lancasterian Association, which, in 1814, developed into the British and Foreign School Society; while the system of education developed by Bell was to form the basis of the National Society for Promoting the Education of the Poor in the Principles of the Established Church, which was set up in 1811. These two 'voluntary' societies, the former largely representing Nonconformist interests, the latter the Church of England, were to dominate elementary education for the first half of the century⁵⁵ and were responsible for the construction of most elementary schools built prior to the Elementary Education Act of 1870.⁵⁶

⁵² Aldrich (1982), p.73. These included: dramatic population increase, rapid industrialisation and widespread urbanisation.

⁵³ Jones (1977), p.8.

⁵⁴ Aldrich (1982), p.73-5. Both advocated a form of teaching in which older pupils instructed younger pupils, known alternatively as the 'monitorial' or 'mutual' system. This allowed large numbers to be educated at little cost.

⁵⁵ Green (1990/1992), pp.208-210. As Green argues, for the greater part of the 19th century, the British government consistently rejected the Continental solution of educational development through the state, relying on the voluntary system, based on private initiative and independent control. The traditional explanation for the delay in founding a national education system rests on the so-called 'religious difficulty', i.e. the view that Anglicans were reluctant to cede control over education, fearing that state control would lead to secularism or the increased influence of dissenters.

⁵⁶ Seaborne (1971), p.147; Maclure (1965/ 1986), p.98; Aldrich (1982), p.75. The first government grants for 'building, enlarging, repair and furnishing' elementary schools were issued in 1833, and these two societies were the chief beneficiaries.

The Act itself, intended to ensure there were sufficient elementary-school places of reasonable quality for all the nation's children,⁵⁷ led to the establishment of School Boards, which were to become responsible for the construction of hundreds of new schools.⁵⁸ Though elementary education was intended exclusively for the poor, the energy put into the design of elementary schools both before and after the Act had an impact on schools designed for the middle class, particularly as a point of comparison.⁵⁹

KEY CONCERNS ABOUT SECONDARY-SCHOOL BUILDINGS IN THE MID-CENTURY

During the 1860s, there was a growing national awareness that England lacked any system of secondary education, a lack thrown into sharp relief by increasingly well-developed systems in Britain's chief economic competitors, Germany, France and the United States.⁶⁰

⁵⁷ Aldrich (1982), pp.78-9.

⁵⁸ *ibid*, p.79. By 1900, nearly half the children attending public elementary schools were in Board Schools.

⁵⁹ Seaborne (1971), p.237; SIC (1868), Vol.17, p.282. As one witness to the Commission noted: '... if I wanted to give the Commissioners a clear view of one main cause why the Grammar School was unpopular while the National School was full, I could not do better than send them a photograph of the two buildings as they stand side by side. The one bright and cheerful with its principle school room well warmed, lighted and ventilated. The other a decayed structure, looking like a compound of an old-fashioned dwelling house and a hen roost or barn.'

⁶⁰ Commentators such as Matthew Arnold were particularly influential in highlighting the contrast. Arnold, the son of Thomas Arnold, had been educated at Rugby under his father. In adult life, he became both a well-known literary figure and a school inspector and influential writer on education. In a number of high-profile works, notably a *French Eton* (1864), he argued for a system of secondary education in England which would be available to the entire middle class.

Throughout the mid-century, but particularly in the wake of the three education commissions, school buildings, their function, design, siting and, to a lesser extent, style, were a topic of central interest to government, educators and architects, an interest reflected in the widespread coverage of schools and other educational buildings in the architectural press.⁶¹

What secondary schools were to look like and how they were to operate in terms of planning came about largely through a comparative approach, both local and international, and heads and governing bodies were increasingly sensitive to the role buildings and facilities played both in attracting custom⁶² and defining the social status of their schools.

English secondary schools of the period in question were never to develop the uniformity of features found in state-funded elementary schools, where government regulations applied, or, indeed, in the state-run German Gymnasias and Polytechnics,⁶³ where again regulation imposed homogeneity. It is, nonetheless, still possible to identify prominent themes in the development of their design through the work of those most concerned with their evolution.

The perspective of The Clarendon Commissioners and The Schools Inquiry Commissioners

The reports produced by the Clarendon Commissioners and the Schools Inquiry Commissioners and the schemes drawn up for individual schools in the wake of the

⁶¹ Seaborne (1971), pp.289-91.

⁶² Shroobree (1988), p.3. Most relied on some form of fee income.

⁶³ Robson (1974/1972), pp.70-71.

Public Schools Act (1868)⁶⁴ and the Endowed Schools Act (1869)⁶⁵ had a direct impact on the siting, facilities and design of secondary schools.

From the outset of their investigations, both secondary-school Commissions confirmed there was much lacking in the infrastructure of the schools they were examining. The Clarendon Commissioners found that in the Great Schools ‘the school buildings... are by no means all that could be desired’;⁶⁶ while the Schools Inquiry Commissioners, who devoted an entire section of their report to sites and buildings,⁶⁷ estimated that ‘at least half of the grammar schools are without doubt insufficiently, and probably only one quarter can be considered fairly, provided’.⁶⁸ When surveying the existing stock of grammar schools, the SIC also compared these unfavourably both with the National elementary schools⁶⁹ and with the recently founded proprietary schools.⁷⁰

The commissioners later appointed to enforce the Endowed Schools Act and the Public Schools Act both delineated expanded new curricula appropriate for different strands of the middle and upper class. This varied from a curriculum largely devoted to the classics, which continued at the Great Schools⁷¹ (and at the schools which

⁶⁴ Aldrich (1982), p.47.

⁶⁵ Maclure (1965/ 1986), p.91.

⁶⁶ CC (1864), Vol. 1, p.49.

⁶⁷ SIC (1868), Vol.1, Appendix.

⁶⁸ *ibid.*, Vol. 1, p.276. Elsewhere in the report, they defined ‘fairly provided’ as: ‘a good and well ventilated schoolroom with desks and other furniture, at least one good classroom, and decent offices, a good master’s house, a grass playground and a site healthy and readily accessible.’

⁶⁹ Seaborne (1971), p.260.

⁷⁰ SIC (1868), Vol. 1, p.276. ‘The newly established schools of a public and semi-public character are usually conspicuous and convenient. The older grammar schools are too often the reverse.’

⁷¹ Mack (1941), pp.35-6. At the public schools, 11 out of 20 classroom hours remained devoted to the classics and divinity. The Clarendon Commissioners had doubts about the advisability of ‘modern’ sides, considering these divisive, but felt that, without sacrificing classical learning, every school should teach not only mathematics and a modern foreign language, but music, drawing, history, geography, English composition, and, above all, natural science.

wished to emulate them),⁷² to a much broader remit in the schools which were to provide a 'modern' education suited to the contemporary workplace. Both sets of commissioners, however, dictated that there should be specific physical provision for science, modern languages and art, as well as facilities for exercise. These requirements generally necessitated either a significant alteration⁷³ or complete re-invention of existing building arrangements.⁷⁴

Both the Clarendon Commissioners and the Schools Inquiry Commissioners, however, were relatively conservative in their expectations of what constituted the school fabric.⁷⁵ While separate classrooms for specific subjects were on the whole thought to be desirable, the assumption was that the single schoolroom, albeit better ventilated and better positioned, accompanied by some classrooms for specific subject teaching, was sufficient.

The Public Schools Act did not directly delineate what it considered to be appropriate buildings for the schools it examined, but its publication had both direct and indirect consequences on infrastructure. Directly, the schemes drawn up for each of the

⁷² Newsome (1959), p.29, p.134-135, pps.139-140. Newsome, for example, details how Wellington, established to provide a modern, practical and technical curriculum for the sons of army officers leaving school at 16 to enter the army, was subverted by its first headmaster Edward White Benson, appointed from Rugby School, to create a 'Great School' with a predominantly classical education. Benson was antagonistic to the SIC, because it categorised Wellington aside from the public schools. '*We shall lose clientele, connections, resources,*' he wrote of its impact in 1869.

⁷³ Seaborne and Lowe (1977), pp.40-42. Each of the Clarendon schools underwent major changes during the years following the Commission. At Eton, for example, New Schools were opened in 1876, providing a science school, five courts, a museum, an observatory, a drawing school, and a lower chapel; while Rugby built a New Quadrangle (completed 1882), which included a chapel, gymnasium and swimming bath, as well as a new Big School (1885), with additional classrooms below a large school room.

⁷⁴ *ibid.*, p.13, p.40. Between the passing of the Endowed Schools Act and 1874, when new Charity Commissioners were appointed, over 350 schemes were prepared for the reorganisation of grammar schools. Almost all required extensive rebuilding. By 1887, a further 800 endowments had been reconstituted, involving an enlargement of most of the schools affected. The development of scientific and modern sides was the main catalyst for change.

⁷⁵ Seaborne (1971), p.243.

Public Schools included in the Act altered the composition of the schools' governing bodies, providing these with greater financial and legal independence and greater freedom to develop their existing building stock.⁷⁶ Indirectly, the Public Schools Act, by providing an important new interpretation of the meaning of 'public school',⁷⁷ gave legal definition to the term as representing an elite set of schools.⁷⁸ Though boarding was not specified as a defining feature, one of the common denominators of the schools ultimately included in the Act was that they were all boarding schools.⁷⁹ In consequence, this aspect of the provision was taken by others to be a necessary characteristic of schools that sought to emulate them.⁸⁰

Boarding schools, of course, share features not required in day schools, such as sleeping quarters, extensive space for activities conducted after lessons (such as sport), and chapels for the spiritual and moral wellbeing of the pupils in their extended care.⁸¹ During the decades after the Act, when other schools sought parity of status with these schools, boarding features, particularly chapels and playing fields, became designators of the education the newly affluent middle classes sought to underline their own social status.⁸²

⁷⁶ *ibid.*, p.245.

⁷⁷ Shrobbree (1988), p.14.

⁷⁸ *ibid.*, p.14.

⁷⁹ *ibid.*, p.93., p.118.

⁸⁰ *ibid.*, p.93.

⁸¹ Hamilton, N.G. (1985), *A History of the Architecture and Ethos of the School Chapel*, PhD Thesis, Bristol: Bristol University. The school chapel frequently became the cause for lavish spending and appointment of eminent architects.

⁸² Norwood and Hope (1909), p.187. Cyril Norwood and Arthur Hope ascribed the development of the boarding-school tradition to 'the snobbishness of the plutocrat, the necessity of the expatriated father, and the convenience of the migratory household'.

The Clarendon Commissioners and the Schools Inquiry Commissioners were in agreement that a school's location played a significant role in attracting parents and maintaining school enrolment, enhancing both the delivery of the education on offer and pupils' physical health and moral wellbeing.⁸³ For the Clarendon Commissioners the latter point was of particular concern in relation to the London day schools, where the schools under investigation (St Paul's, Merchant Taylors', Westminster and Charterhouse) were all deemed detrimentally affected by urban conditions.⁸⁴ Their sites, always noisy, often dark and polluted, made teaching and learning problematic and were considered to expose pupils to disease and moral turpitude.⁸⁵ This, in turn, led the Commission to emphasise the benefits of a rural or suburban location.⁸⁶

The Schools Inquiry Commission, while fully conscious of the disadvantages of inner-city sites, saw it as part of its purpose to investigate the means to organise an effective countryside network of secondary education for the full range of the middle

⁸³ SIC (1868), Vol.17, p.276. The SIC emphasised that: 'Next to a good master there is nothing more important for a school than a good site and buildings. Health, order, dignity, good teaching and good learning are all intimately concerned with the aspect and accommodation of the school itself; and that a grammar school may occupy its right place in the respect of the inhabitants generally it should occupy a power position among the buildings of the town.'

⁸⁴ CC (1864), Vol. 1, p.50. 'Being situated in the heart of a large city, it is impossible that they should offer to the boys the same facilities for recreation and exercise as the schools situated in the country, or in smaller towns where access to the country readily be had.'

⁸⁵ *ibid.* The Commissioners expressed the view that conditions in London meant pupils had to choose between 'confinement to a playground, when there is one, and liberty to walk in the streets of London, which are evidently not the most desirable places for boys to spend their leisure time.'

⁸⁶ *ibid.*, Ch. 5, p.196. The Commission recommended the removal of all four London schools, either, in the case of Merchant Taylors' and St Paul's, to a 'more suitable part of the Metropolis' or, in the case of the two boarding schools, Westminster and Charterhouse, to the countryside.

classes.⁸⁷ As such, it would often prioritise factors, such as public transport, which allowed a school to serve a more extensive population.⁸⁸

The 'Great Schools' were quick to respond to the Clarendon Commissioners' criticisms, fearing they might be overtaken by more up-to-date, if lesser, establishments. Aside from Charterhouse⁸⁹ and Shrewsbury,⁹⁰ however, the seven schools included in the Public Schools Act remained on their original sites addressing new requirements by means of additional buildings.⁹¹

In the wake of the Public Schools Act, these schools (and those who wished to emulate them)⁹² cumulatively created the archetype of the English 'public school', the neo-Gothic boarding school, with its spacious playing fields and architecturally distinguished chapel, a type identified (and frequently condemned) by a myriad of later commentators.⁹³

Most of the schools examined by the Schools Inquiry Commission, on the other hand, remained day schools, and the majority of the richer endowed grammar schools were entirely rebuilt either on the same site or in a new location. What has not been extensively explored in the literature is the fact that this, far more radical,

⁸⁷ Allsobrook (1986), pp.5-7.

⁸⁸ Watson (2015), p.48. In the wake of the SIC's requirements, for example, MGS considered relocating to a nearby suburb, but the need to attract 1000 boys, travelling in from a 30-mile radius, kept the school in its central, if insalubrious, location.

⁸⁹ *ibid.*, p.41. Which moved to Surrey in 1872.

⁹⁰ *ibid.* Shrewsbury moved elsewhere in the town in 1882.

⁹¹ Seaborne (1975), p.183. Seaborne classifies Victorian restructuring into two groups: the 'nuclear', in which new buildings were added to an existing nucleus; and the 'quadrangular', in which buildings were planned from scratch on an ambitious scale. The public schools largely fell into the former category; the proprietary and other 'First Grade' schools into the latter.

⁹² Honey (1977), p.249. It is generally accepted that, by the end of the 19th century, the 100 or so schools that belonged to the Headmasters' Conference (HMC) were 'public schools'.

⁹³ Mack (1938,1941), Newsome (1961), Bamford (1967), Honey (1977).

physical revolution, helped shape an alternative typology, with an architectural and educational heritage which has proved equally enduring. By helping to define 'First-Class' **day** schools, secondary schools where a modern education could be delivered to the urban middle classes, the Endowed Schools Act produced an English model much nearer to its Continental and North American counterparts. In this thesis, I will argue that it was the buildings created in the wake of the Endowed Schools Act at Dulwich College,⁹⁴ City of London School,⁹⁵ Merchant Taylors' School,⁹⁶ King's College School,⁹⁷ and particularly St Paul's itself which laid the foundation for 20th- and 21st-century secondary-school buildings.

The influence of Edward Thring and the Headmasters' Conference

The view that good buildings could facilitate educational outcomes had been explicitly voiced by secondary-school educators such as William Sewell, founder of Radley College, and the Rev. Nathaniel Woodward, founder of Lancing College, from the mid-century,⁹⁸ but Edward Thring, who became headmaster of the beleaguered endowed grammar school of Uppingham in 1853⁹⁹ and then, in 1869,

⁹⁴ Seaborne (1971), pp.267-8.

⁹⁵ *ibid.*, p.43. City of London moved into a new building in 1883. 'As near to the Prussian system as any in England at the time', it had a science school, classrooms, a great Hall, a dining hall and a library.

⁹⁶ Seaborne and Lowe (1977) p.42. Merchant Taylors' new building, opened in 1872, had classrooms, a gymnasium, two dining halls, five courts and a lecture theatre.

⁹⁷ Hinde (1995a), pp.39-54.

⁹⁸ Boyd (1948), p.99. Sewell claimed that every aspect of the design '*from the organisation of the school to the choice of the carpets*' contributed to the education; Kirk (1952), p.144, while the Rev. Nathaniel Woodard, who established a chain of 'Public Schools for the Middle Classes' believed that: 'No system of education would be perfect which does not provide for the cultivation of the taste of the pupils through the agency of the highest examples of architecture.'

⁹⁹ Parkin (1900), p.59.

first Chair of the Headmasters' Conference,¹⁰⁰ was undoubtedly one of its most influential advocates.¹⁰¹

Early in his career as head, Thring, who had been educated at Eton,¹⁰² developed two revolutionary 'truths' to his educational philosophy. Firstly, he argued that: 'the necessity in a true school that every boy, be he clever or stupid, must have proper individual attention paid to him';¹⁰³ and, secondly, springing from the first, that 'the proper machinery for work, proper tools of all sorts, are at least as necessary in making a boy take a given shape, as in making a deal box'.¹⁰⁴ To satisfy the first criterion, he introduced a much broader curriculum;¹⁰⁵ to fulfil the second, he built extensively, commissioning the influential neo-Gothic architect George Edmund (G.E.) Street¹⁰⁶ to design the schoolroom,¹⁰⁷ furnishing each boy with a private study¹⁰⁸ and providing 'adequate appliances for manual employment, for amusement or recreation in leisure hours'.¹⁰⁹

Thring considered infrastructure ('the almighty wall')¹¹⁰ critical in shaping boys' behaviour, declaring:

¹⁰⁰ Percival (1969), p.38.

¹⁰¹ *ibid.*, p.23. As the first chair of the HMC, Thring, Percival argues: 'gathered up, and gave coherence to, the ideas that were pervading England in the latter half of the 19th century. The views of his colleagues were often his own, for his ideas chimed well with much of what was being discussed and approved in his time.'

¹⁰² Parkin (1900), p.15.

¹⁰³ *ibid.*, p.68. In an 1875 statement to the trustees.

¹⁰⁴ *ibid.*

¹⁰⁵ Seaborne (1971), p.270. He introduced music teaching in 1855, drawing, chemistry and German in 1856, physical training in 1859 and carpentry in 1862.

¹⁰⁶ Parkin (1900), p.89-90; Brownlee, D.B. (2004/online 2008) '*Street, George Edmund (1824-1881)*', *Oxford Dictionary of National Biography*, Oxford: Oxford University Press. Street was a leading exponent of High-Church Gothic, responsible for the Royal Courts of Justice and winner of the 1874 Gold Medal of the RIBA, where he became President.

¹⁰⁷ Seaborne (1971), p.271. Completed 1863. Street also designed the chapel of 1865.

¹⁰⁸ Parkin (1900), p.91.

¹⁰⁹ *ibid.*, p.218.

¹¹⁰ *ibid.*, p.217.

Whatever men say or think the almighty wall is, after all, the supreme and final arbiter of schools. I mean, no living power in the world can overcome the dead, unfeeling, everlasting pressure of the permanent structure, of the permanent conditions under which work has to be done. ... Never rest till you have got the almighty wall on your side, and not against you. Never rest till you have got all the fixed machinery for work, the best possible. The waste in a teacher's workshop is the lives of men. ¹¹¹

Thring's influence, however, lay as much in his role as a propagator as an instigator of design reform. On December 21st, 1869,¹¹² he became the host of the first HMC conference. The meeting was held at Uppingham, and Thring argued that the conference should subsequently be held at a different school each year,¹¹³ considering it vital that the heads involved see each other's schools.¹¹⁴ In many instances, this departure would have provided the first opportunity for heads to visit schools other than their own.

At the time, Thring repeatedly proclaimed his views about the significance of infrastructure ('the class of a school, its rank in the public-school community was determined by its building';¹¹⁵ 'Machinery, machinery, machinery, should be the motto of every good school'),¹¹⁶ and it is, therefore, perhaps unsurprising that the

¹¹¹ *ibid.*, pp.217-18.

¹¹² Percival (1969), p.38.

¹¹³ *ibid.*, p.39.

¹¹⁴ *Ibid.*, p.30.

¹¹⁵ Thring (1869) in Whyte (2003).

¹¹⁶ Parkin (1900), p.92.

twelve heads assembled at the first HMC meeting,¹¹⁷ when discussing the best use of endowments, decided the first call on these was to improve school fabric.¹¹⁸

After 1870, ideas about what constituted appropriate school infrastructure became more uniform¹¹⁹ and it seems reasonable to suggest that at least some of this uniformity came about as a direct result of the establishment of the HMC.

While the atmosphere of the Conference was generally co-operative, it must be born in mind, too, that secondary schools of this date were essentially businesses, required to sell themselves to their ‘target audience’ and match the facilities offered by their competitors.¹²⁰ Comparative shopping was to become common¹²¹ and many of the schools used the same architects, resulting in what William Whyte has described as a ‘public-school style’ with own ‘rhetoric and aesthetic vocabulary’, a vocabulary which, in elevation, presented ‘an eclectic mix of late Tudor details which contemporaries called the “Popular Perpendicular Gothic Collegiate Style”’ and, in plan, referenced the Oxford and Cambridge quad.¹²²

Even where this style was not adopted, the scale and expense of the buildings created in the wake of the Acts became an overt expression of a school’s aspirations. At Dulwich College (**FIGURE 6**), for example, the new building of 1870 cost the then vast sum of £100,000,¹²³ but as the contemporary school historian William Blanch remarked, ‘for this the governors have a suite of buildings which they

¹¹⁷ Percival (1969), p.31. Between 60 and 70 invitations were sent out.

¹¹⁸ *ibid.*, p.45.

¹¹⁹ Whyte (2003), p.620.

¹²⁰ *ibid.*, p.608, p.609.

¹²¹ *ibid.*, p.611. Brighton College, for example, made a systematic survey of other schools’ cricket pavilions.

¹²² *ibid.*, pp.619-620, p. 611, p.604, p.621.

¹²³ As much as St Paul’s a decade later.

can regard with pride – a structure... worthy of the prominent position which Dulwich is now rapidly taking up as one of the great public schools in England.’¹²⁴ The building itself helped remove any ambiguity about the school’s status.¹²⁵

The perspective of E.R. Robson, Chief Architect of the London School Board

Over the course of the 19th century, much of the theoretical writing on school architecture was focussed on the arrangement and management of elementary education, considered the most pressing national requirement, and a specialist literature emerged about the design of these schools.¹²⁶ The Elementary Education Act (1870), however, can be seen as a watershed in perception about the architectural significance of publicly-funded schools, a significance demonstrated most clearly in the writing of E. R. Robson, whose seminal work *School Architecture* was published in 1874.¹²⁷

Robson¹²⁸ became the first architect of the new London School Board in 1871,¹²⁹ and, in the book he wrote shortly afterwards, expressed his views about the role elementary school buildings should play: ‘If popular education be worth its great price, its homes deserve something more than a passing thought. School houses are

¹²⁴ Blanch (1877), p.25.

¹²⁵ *ibid.*, p.27. ‘...whether the Upper School was to be made what is now known as a school of the first grade, and to take its place among the schools after which Alleyn modelled it, Winchester, St Paul’s, Westminster and Merchant Taylors’, or to become a middle-class grammar school, something a little better or a little worse than the Classical and Commercial Academy.’

¹²⁶ Seaborne (1971), p.136.

¹²⁷ Robson (1874/1972). Over 400 pages long, it included 306 illustrations.

¹²⁸ *ibid.*, Introduction, p.10. Robson apprenticed with the well-known Newcastle-on-Tyne architect John Dobson, and undertook further training in the London office of Sir George Gilbert Scott. Prior to his appointment at the London School Board, he was architect and surveyor to the city of Liverpool and architect to Durham Cathedral.

¹²⁹ Weiner (1994), p.58.

henceforth to take rank as public buildings, and should be planned and built in a manner befitting their new dignity'.¹³⁰

In his own day, Robson acquired an international reputation as the leading expert on school architecture,¹³¹ and his book remains a valuable source of information about the development of school architecture both in England and abroad during the period under investigation. As Catherine Burke and Ian Grosvenor observe in a recent paper on Robson,

through his selection of case study schools and the narratives constructed around them, he provided 'practical and useful' guidance, but in doing so also helped to determine the parameters of the field of school architecture. Placing this information in a single text, Robson brought together for his readers in one space designs from across Europe and America. He assembled knowledge from widely dispersed sites and juxtaposed them in new combinations that offered the reader opportunities for reflection, comparison and judgement. ... Further, through their architectural language – the materials, the design principles, and plans - the actual buildings he included projected ideas onto the landscape about the place of education in society.¹³²

In the context of this thesis, the book's significance is threefold. Firstly, as Malcolm Seaborne notes, though by no means the first architect to interest himself in school design,¹³³ Robson's great achievement was to make himself proficient in both the

¹³⁰ Robson (1874/1972) p.2.

¹³¹ *ibid.*, Introduction, p.9.

¹³² Burke and Grosvenor (2013), pp.201-220.

¹³³ Robson (1874/1972), Introduction, p.17.

architectural and educational aspects of school design and to integrate the two, announcing the need for a specific style for educational buildings.¹³⁴ Secondly, though Robson's book was intended to act as a manual for designing English elementary schools,¹³⁵ a significant portion of it was devoted to secondary-school design, with extensive plans and elevations of secondary schools in America and on the Continent,¹³⁶ and an entire chapter dedicated to the construction of English 'middle schools', of which he was a firm advocate.¹³⁷ Significantly, in this chapter, he criticises the older public schools, which 'furnish us with few ideas as to the future planning of Public Middle Schools',¹³⁸ commending instead schools abroad, particularly those in Germany.¹³⁹ ('Considered simply as day-schools for boys, it would be difficult to point to any models more worthy than some of these establishments to receive the careful attention of an architect entrusted with the arrangement of a new school house of the secondary kind.')¹⁴⁰ In the context of this

¹³⁴ *ibid.* p.20, p.323. Robson was quick to realise that Gothic school buildings were associated with denominational rivalry, and, as the London School Board was dominated by members of the progressive or Liberal Party, he advocated a new secular style ('...that of the time of the Jameses, Queen Anne, and the early Georges...'). Goodhart-Rendel (1953/1989), p.163. The influential architect and architectural historian Harry Stuart Goodhart-Rendel suggested that the 'Queen Anne Style' employed by Robson in the London Board Schools, 'could be better called "the Board School" style, because its earliest appearance upon any scale was in these schools.'

¹³⁵ Robson (1874/1982), pp.1-2. As Robson noted: 'There is no complete handbook on planning and fitting up school-houses... setting forth how the different parts of the building should fit together so as to form one harmonious whole.'

¹³⁶ *ibid.*, Introduction, p.13, Robson travelled to Switzerland, Germany, France, Belgium, Holland and America, in search 'of the best schools', both elementary and secondary. Six chapters at the start of the book provide an account of these.

¹³⁷ *Ibid.*, p. 2; pp.232-243. Robson specifically points out how the Elementary Education Act had 'rendered more than ever apparent our sad lack of Secondary Schools', and, in his brief chapter on 'Middle Schools' underlines this point. (p.234. 'It may now be plainly stated as an indisputable fact that, in more than one direction they (foreign nations) are ahead of us. The time, therefore, has gone by when England can afford to allow its professional, scientific and mechanical men, or even its skilled artizans, to be educated merely by rule of thumb.')

¹³⁸ *ibid.*, p.235. Though Robson goes on to concede 'it would be possible to collect specimens, possessing good features, from among the superior English schools erected... say during the last thirty years. '

¹³⁹ *ibid.* p.74, pp.69-146. He considered the secondary schools of Prussia and Saxony, schools he had extensively illustrated in an earlier chapter, the best.

¹⁴⁰ *ibid.*, pp.88-94. For example, he provides a seven-page analysis of König-Wilhelm Gymnasium in Berlin (**FIGURES 7-11**), opened in 1865, including full floor plans. The accommodation here bore striking similarities to that later provided at St Paul's. Robson himself toured the school, 'erected in a very complete and costly

thesis, it is relevant, too, that here Robson highlights two examples of what he considers 'best practice' in England, Owens College,¹⁴¹ Manchester, and Girton College, Cambridge,¹⁴² both designed by Alfred Waterhouse (who is not mentioned by name).

Finally, just four years before Waterhouse was appointed to design St Paul's,¹⁴³ Robson provides a detailed analysis of what he considers the best method of school construction, from the most successful means of heating¹⁴⁴ to the ideal direction of light.¹⁴⁵ Though he was working within an existing body of theory,¹⁴⁶ in this respect, *School Architecture* offers a valuable summary of contemporary design practice,¹⁴⁷ practice that was, in many instances, put into immediate effect in the pace-setting schools Robson built for the London School Board.¹⁴⁸

THE EMERGENCE OF THE MODERN SCHOOL

manner, with the intention of making it the most complete example in Germany', and considered it 'a kind of school useful for comparison with our own grammar schools.'

¹⁴¹ *ibid.*, pp.236-8.

¹⁴² *ibid.*, pp.239-40.

¹⁴³ *MM*, 10th May, 1878. Waterhouse was appointed in May, 1878.

¹⁴⁴ Robson (1874/1972), Chapter XV, pp.263-290.

¹⁴⁵ *ibid.*, pp.176-9.

¹⁴⁶ *ibid.*, Introduction, p.14. Robson references Arnold and may also have been aware of other writing on school architecture, which appeared in the first half of the 19th century on the Continent and in North America.

¹⁴⁷ *ibid.* Chapter XII, pp.203-231.

¹⁴⁸ Weiner (1994), p.65, p.5. Nearly 300 schools had been completed by the time Robson resigned in 1884. Their impact was recognised in Arthur Conan Doyle's short story of 1892, '*The Naval Treaty*' (Conan Doyle, A. (1892/1928), '*The Naval Treaty*' in *Sherlock Holmes: The Complete Short Stories*, London: John Murray), in which Sherlock Holmes comments of them, 'Lighthouses...Beacons of the future! Capsules with hundreds of bright little seeds in each, out of which will spring the wiser, better England of the future.'

The changes which occurred during the thirty or so years following the Public School Act (1868) and Endowed Schools Act (1869) saw the widespread emergence of what is now understood to be an English secondary day school, i.e., a single, large, free-standing building housing a significant number¹⁴⁹ of adolescent pupils, who study in individual classrooms for subjects which require no specialist equipment, and in designated rooms for those requiring specialist facilities, such as art and science. These buildings are also characterised by: a large Assembly Hall; a gymnasium; a library; a dining hall; and adjoining playing fields.

By 1900, these features had become standard,¹⁵⁰ but their introduction took place at different rates and in different manners, which are evaluated below.

The move to classrooms

At the time of the Clarendon Commission and the Schools Inquiry Commission, the majority of schools continued to teach most pupils in a single large 'schoolroom', and the move towards classroom teaching enjoyed a slow and haphazard evolution.

Amongst the major secondary schools, Rugby was the first to introduce independent classrooms. Here, from the late 18th century,¹⁵¹ every form¹⁵² was given its own classroom or 'school', a practice that was vigorously defended by the school's

¹⁴⁹ During this period, pupil numbers in a single school rose from 200-400 to 500-1500.

¹⁵⁰ Clay (1902/1906), p.37.

¹⁵¹ Rouse (1898), p.131, p.133. That this arrangement was unusual is shown in Carlisle, N. (1818/1975, Vol.1), p.677. *A Concise Description of the Endowed Grammar Schools, Leicestershire, Northamptonshire, Rutland, Staffordshire, Warwickshire and Worcestershire (extracted from Vol.1)*, London: Richmond Publishing Co Ltd.

¹⁵² Each 'form' represented a different level of attainment in the classical curriculum, with pupils progressing on the basis of accomplishment in the classics, rather than by age.

influential head, Frederick Temple, at the time of the Clarendon Commissioners' visit.¹⁵³

Though both the Clarendon Commissioners¹⁵⁴ and the Schools Inquiry Commissioners,¹⁵⁵ recommended specific accommodation for specialist-subject teaching, the former was not entirely convinced of the necessity or benefit of classroom teaching.

We are ourselves aware that there are great advantages for teaching and some advantages for learning in the system of allotting single rooms to single classes... But it may admit of doubt whether...schools are not moving faster than the world, for which they are a preparation... It is necessary at the Bar, and in other careers of life, and in the houses of Parliament, that much mental work should be done of all kinds, amidst many outward causes of distraction. It would be a matter of regret if Public School life should in any way disqualify boys for the conditions under which they must do their work as men.'¹⁵⁶

Much of the impetus for secondary-school classroom teaching had, in fact, derived from schools outside the milieu of the public and endowed schools. Just three years after Jeremy Bentham published *Chrestomathia* in 1816, outlining an extensive

¹⁵³ CC (1864), Vol.1, p.287. 'Dr Temple seems to lay it down as a principle that two classes should, under no circumstances, occupy the same apartment.' Spooner, H.M. rev. Chapman, M.D, (2004) '*Temple, Frederick, 1821-1902*' *Oxford Dictionary of National Biography*, Oxford: Oxford University Press. Tutored by A.C. Tait and Benjamin Jowett at Oxford, Temple was appointed to the Taunton Commission in 1864, where he drafted the chapters on secondary education desire and the recommendations of the Commission. He later became Archbishop of Canterbury.

¹⁵⁴ *ibid.* '... to enable those branches of instructions of which we recommend the introduction to be well taught...some additional separate accommodation will be required.'

¹⁵⁵ SIC (1868), Vol.3, p.319. At MGS, the SIC recommended separate rooms for modern languages, English Literature, art and science, as well as for arithmetic and mathematics.

¹⁵⁶ CC (1864), Vol.1, p.287.

alternative to the classical curriculum,¹⁵⁷ Hazelwood School in Birmingham, founded on Benthamite principles,¹⁵⁸ opened a new building which is said to have contained numerous classrooms.¹⁵⁹ By the 1820s and 30s, other newly founded schools with more 'modern' curricula, such as City of London¹⁶⁰ and Mill Hill,¹⁶¹ had also introduced individual classrooms.

A shift in pedagogy furthered the transition. Malcolm Seaborne credits Samuel Wilderspin¹⁶² with the introduction in the 1820s of a system of teaching, ultimately known as 'the simultaneous method'.¹⁶³ Wilderspin considered it essential that a small room be included off the main classroom, so the master could teach each class in turn, while a mistress supervised the work in the main room.¹⁶⁴ This approach differed from the monitorial system¹⁶⁵ and eventually became the orthodox means of teaching in elementary schools.¹⁶⁶

By the time Robson made his tour of Continental schools in the early 1870s, classroom teaching was widespread, with all children in Germany's 6000 elementary

¹⁵⁷ Simon (1960/ 1966), p.79. Bentham's influential book surveyed the whole field of human knowledge, suggesting a curriculum in which science and technology played an integral part.

¹⁵⁸ Seaborne (1971), p.181.

¹⁵⁹ *ibid.* Designed by Rowland Hill.

¹⁶⁰ *ibid.*, pp.183-5. From its foundation in 1838, City of London School, modelling its curriculum on University College School (founded 1830) and King's College School (founded 1831), taught modern languages, English Literature, and theoretical science.

¹⁶¹ *ibid.*, p.166. From 1825.

¹⁶² *ibid.* p.142.

¹⁶³ *ibid.* Wilderspin, who introduced this method in a model school he opened in 1820, wrote about it in 'The Importance of Educating the Infant Children of the Poor', published in 1823.

¹⁶⁴ *ibid.* Here, he was one of first to use the word 'classroom' (applied to this extra room), as opposed to 'schoolroom' (applied to the main teaching space).

¹⁶⁵ *ibid.*, p.143.

¹⁶⁶ *ibid.*, p.144. Wilderspin's ideas were further developed by David Stow in his hugely influential work, *The Training System adopted in model schools of the Glasgow Educational Society* (1836, Glasgow: McPhun), which included plans for infant and juvenile schools all of which show a separate classroom.

schools¹⁶⁷ taught in individual classrooms.¹⁶⁸ The German system, however, relied on the provision of a trained teacher for every classroom,¹⁶⁹ and, while Robson considered classroom teaching advantageous, he concluded that it could not easily be adopted in English elementary schools, where 'the principal teacher of any department is expected, not only to be responsible for the management of the whole department, but to be actually engaged in the work of teaching, and not, as under some other systems, to be merely a general superintendent of the work of others.'¹⁷⁰

In secondary schools, the case was, of course, different. All teachers were academically (if not professionally) qualified, and, here, the broadening curriculum and increasing separation between the teaching and administrative function of the head¹⁷¹ facilitated the introduction of teaching in individual classrooms.

The evolution of the Assembly Hall

The Assembly Hall was a new feature of secondary-school design in the 19th century and, over the final third of the century, cast off its roots in the mediaeval 'schoolroom'¹⁷² to become a meeting space which, particularly in richer schools, was used primarily or exclusively for congregation rather than instruction.

¹⁶⁷ Robson (1874/1982), p.71, p.74. In Prussia, compulsory primary education began in 1763. By the 1870s, six million children were being educated at this level in the German Empire.

¹⁶⁸ *ibid.*, p.72.

¹⁶⁹ *ibid.*, p.73. Only 'certificated teachers' were employed.

¹⁷⁰ *ibid.*, p.162.

¹⁷¹ See Ch.6. pp.174-7.

¹⁷² Seaborne (1971), p.268.

Though the schoolroom is its most obvious precedent, various other sources must be taken into consideration when discussing its evolution. Of these, the *aula*¹⁷³ or exam hall found in contemporary German schools is clearly one. This large and impressive room, as Robson demonstrates, was a distinctive feature of the fine new gymnasia being built in Germany in the 1860s, where it was given considerable architectural prominence (generally located centre front on the first floor)¹⁷⁴ and furthered distinguished by lavish ornament both externally and internally.¹⁷⁵ *Aulae* were reserved exclusively for examinations and occasional ceremonial feast days,¹⁷⁶ and Robson deduced that this unusual extravagance ('particularly in a nation so economical as the Germans')¹⁷⁷ was the outward and visible manifestation of 'the separate class method', concluding that: '...the results of the system in its higher conditions, as proved by the examinations, are considered to be the crowning test, assuming in the eyes of the authorities quite a national importance.'¹⁷⁸

Robson himself, however, draws a distinction between the German '*aula*' and the equally widespread American 'Assembly Hall'.¹⁷⁹ The former, in his view, was primarily a symbolic space; while, the latter he saw as more practical, providing 'a room of sufficient size for assembling all the children every day, or whenever desired, for collective lessons, singing or addresses'.¹⁸⁰

¹⁷³ The Latin word means court or hall.

¹⁷⁴ Robson (1874), p.98.

¹⁷⁵ *ibid.*, p.95. For example, in the gymnasia at Cottbus (1867) and Liegnitz (1867).

¹⁷⁶ *ibid.*, pp.95-6. 'in visiting many schools of this class, and seeing the Hall often richly decorated and handsomely furnished, the inquiry "how often is it used?" was always met by the reply "three or four times a year", or, "Not more than six times a year".' The *aula* also featured in other Continental schools.

¹⁷⁷ *ibid.* p.95.

¹⁷⁸ *ibid.*, pp.96-7; p.81. The *aula* was primarily the preserve of the richest schools ('the highest kinds are never without it, although ...it is hardly ever found in the people's or poor schools.').

¹⁷⁹ *ibid.*, p.80.

¹⁸⁰ *ibid.*

A further source for the Assembly Hall must arguably lie in the halls of the colleges of Oxford and Cambridge and the older public schools. Howard Staunton, in his 1865 survey of England's '*Great Schools*', details the fact that the Hall, at least in the major public schools, still very much fulfilled its historic function of the school's dining room,¹⁸¹ a function it would continue to serve in some new Assembly Halls.¹⁸²

Mediaevalising fashion in country-house design may also have had some bearing. As Mark Girouard demonstrates, in these houses, particularly in the 1830s and 40s, the mediaeval or Elizabethan Great Hall¹⁸³ (which in the Middle Ages may itself have been the source of grammar-school design)¹⁸⁴ saw a considerable revival under the influence of romantic and historicist tendencies.

By the time the new St Paul's building was under discussion, teaching in the larger secondary schools was largely carried out in individual classrooms,¹⁸⁵ and, as Robson had foreseen, an alternative space for whole-school gatherings had become a more obvious requirement, particularly in day schools.¹⁸⁶ (In boarding schools, the entire school continued to assemble in the school chapel).

¹⁸¹ Staunton (1865), p.8., p.60, p.107.

¹⁸² Blanch (1877), p.24. At Dulwich, for example.

¹⁸³ Girouard (1971), pp.27-8; Scott, G.G. (1857), p.150. *Remarks on Secular and Domestic Architecture, Present and Future*, London: John Murray. As late as 1857, George Gilbert Scott gave a further boost to the model for: 'that broader hospitality which belongs especially to the great landlord.' In the 1850s and 60s, Scott worked at Rugby, Harrow, Westminster and Brighton College.

¹⁸⁴ Orme, N. (2006), p.141, *Mediaeval Schools*, New Haven and London: Yale University Press.

¹⁸⁵ MM, 10th May, 1878.

¹⁸⁶ Seaborne (1971), p.184.

The extravagant use of space, too, has always been a distinguishing feature of social status, and, in the case of the Assembly Hall, the scale of the hall became a physical marker of a school's eminence. Only richer schools could afford this relatively under-used space, and the architectural press of the period undoubtedly related the size of the Assembly Hall to the ambitions of the school.¹⁸⁷

Malcom Seaborne sees 'the final transformation of the traditional schoolroom in to the modern assembly hall' occurring at Dulwich College, an endowed grammar school, rebuilt in 1870 with money acquired selling off land to the railways.¹⁸⁸ Here, 'the great hall', which formed 'the principal feature of this magnificent pile of buildings',¹⁸⁹ served as 'a place of muster for the whole school every morning before the boys proceed to their several classrooms'.¹⁹⁰ It was also, however, a ceremonial space, able to accommodate up to 700 or 800 visitors on 'the great public gatherings of the annual speeches, distribution of prizes and concerts'.¹⁹¹

The latter function clearly determined its decoration, which emphasised both the historic antecedents of the school¹⁹² and its new purpose of providing a meritocratic education for the sons of 'professional men'.¹⁹³ The armorial bearings of the College

¹⁸⁷ *The Builder*, Vol. XXXV11 (1879), p.1251. By 1879, in the plans for City of London's new building, the Assembly Hall, was considered 'a salient feature of the ... design'.¹⁸⁷

¹⁸⁸ Seaborne (1971), p.268; Blanch (1877), p.27.

¹⁸⁹ *ibid.*, pp.23-24. The Hall, located on the 'principal' floor of the building (i.e. the first floor) was a large room of 92ft by 43ft wide by 50ft high, with a raised dais at the eastern end 'available for speeches and dramatic recitations'.

¹⁹⁰ *ibid.*, p.24.

¹⁹¹ *ibid.* MM, 19th December, 1879. It was suggested from the outset that at St Paul's, too, the Hall be used for the annual 'Apposition', or speech day.

¹⁹² Blanch (1877), pp.1-3, p.16. Edward Alleyn established a college for up to 80 scholars in 1619, but the school was entirely reconstituted under an Act of Parliament of 1857.

¹⁹³ *ibid.*, p.27. 'a school of the highest type, and yet a school of a very different character from the old classical schools.'

featured in the spandrels of the springers under the hammer beams¹⁹⁴ and display panels were 'filled with the recorded names of scholars of Alleyn's College who shall have attained distinction in their after studies and their future lives'.¹⁹⁵

Dulwich established a template which was to become, over the course of the rest of the century, the norm. When Merchant Taylors' rebuilt the building formerly occupied by Charterhouse in 1872, a lofty 'Great Hall' with a hammer-beam roof was its chief feature.¹⁹⁶ At City of London, rebuilt in 1883, the expansive neo-classical Hall occupied the entire river-frontage of the first floor and was decorated with illustrated windows representing Greek and English literary figures.¹⁹⁷ Bedford School, rebuilt in 1891,¹⁹⁸ added a large Hall, as did King's College School, when it relocated to Wimbledon from the Strand in the late 1890s.¹⁹⁹ By the turn of the 20th century, the Assembly Hall had become a standard feature of planning, and the 1906 Board of Education regulations for secondary schools stipulated that 'the Central or Assembly Hall should not be used as a classroom, except for drawing'.²⁰⁰ During these years, the location of the Hall became a significant concern and two types of plan became commonplace: the 'central-hall plan', in which all the classrooms entered directly into the Hall; and those in which the Hall was located at the end of a corridor.

¹⁹⁴ *ibid.*

¹⁹⁵ *ibid.*

¹⁹⁶ Seaborne and Lowe (1977), p.42.

¹⁹⁷ Douglas-Smith (1937/1965), p.246.

¹⁹⁸ Clay (1902/1906), p.45.

¹⁹⁹ Anon. (1967), p.14.

²⁰⁰ Clay (1902/1906), Appendix B, p.506, Board of Education (March 1906), *Building Regulations for Secondary Schools and Pupil Teacher Centres: Being Principles to be Observed in Designing & Fitting Up New Buildings, etc. and Certain Requirements as to Plans, Specifications and Estimates.*

The 'central-hall plan' was to gain a wide following, because of its convenience,²⁰¹ economy²⁰² and disciplinary advantages,²⁰³ but it had its drawbacks in schools where the Hall was used for activities such as exams, gymnastics²⁰⁴ or dining, and was possibly better suited to elementary schools with their limited range of functions,²⁰⁵ than to large secondary schools, with the need to integrate more complex requirements.

The development of facilities for science

The debate about the curriculum which raged most furiously in the Clarendon schools in the mid-century centred on the relative merit of classics and more 'modern' subjects, particularly science. At the time of the Clarendon Commission, the curriculum at the older public schools remained almost exclusively confined to the study of Latin and Greek (though Maths had slowly been introduced from the first half of the century).²⁰⁶ The heads of these schools defended the status quo, arguing that their *raison d'être* was to provide a 'liberal education', intended to fully develop mind and character,²⁰⁷ and science did little to further this end. By the 1860s,

²⁰¹ *ibid.*, p.148, p.154. It made it easy to assemble and discharge pupils.

²⁰² *ibid.* It reduced the need for costly corridors.

²⁰³ *ibid.*, p.150. Miss Buss, celebrated founding head of North London Collegiate School, said of it: 'The supervision is much more easy (sic), as is the control of pupils while assembling and dismissing.' Foucault, M. (1975/1991), tr. Sheridan, A., *Discipline and Punish: The Birth of the Prison*. Harmondsworth: Penguin Books. The use of this arrangement as a means of exerting power and discipline has been analysed by Michel Foucault, who presents a series of parallels between prisons, schools, hospitals and barracks as institutions for the production of '*docile bodies*'.

²⁰⁴ *ibid.*, p.148.

²⁰⁵ Seaborne and Lowe (1977), pp.8-9.

²⁰⁶ Meadows and Brock (1975), p.97.

²⁰⁷ Krumpe (1987), p.89. All the heads of the schools included in the Public Schools Acts agreed on the centrality of the classics. William Gladstone might be said to summarise their viewpoint in his testimony to the CC: 'What I felt is that the relation of pure science, natural science, modern languages, modern history and the rest to the old classical training is ancillary, and, as ancillary, it ought to be limited and restrained without scruple as much as a regard to the paramount matter of education may dictate.'

however, this perspective had become widely-disputed. Science instruction for both the middle²⁰⁸ and working class²⁰⁹ was already well established and a powerful body of prominent scientists²¹⁰ insisted that a classical education alone was no longer sufficient to furnish pupils with appropriate skills for the modern world.²¹¹ Their stance was fully appreciated by the Clarendon Commissioners.²¹²

In the conclusion of their report, the Commissioners were damning about the lack of science instruction ('Natural science... is practically excluded from the education of the higher classes in England. ...This exclusion is, in our view, a plain defect and great practical evil.')

²¹³ and unequivocal that science should, in future, form part of the curriculum. The commissioners appointed to implement the 1868 Act proceeded

²⁰⁸ Floud and Glynn (1998), p.53. Both University College, London (after 1826), and King's College, London (after 1828) provided advanced courses in science and engineering. After 1845, the Royal College of Practical Chemistry (later part of Imperial College) provided advanced courses, modelled on those of Europe. Owens College in Manchester (See Ch.6. p.200) also provided advanced science instruction.

²⁰⁹ Marguerin (1864), pp.66-73. The Great Exhibition of 1851 demonstrated the superior engineering skills of Germany and the USA, and, in 1859, the Department of Science and Art launched a programme of applied science for 'young workers', paying for teachers and offering free instruction for working-class pupils, alongside an elaborate system of exams and prizes in architectural and machine drawing, mechanical and experimental physics, chemistry, geology, natural history and botany. The department also contributed to the cost of science equipment in schools.

²¹⁰ Mack (1941), pp.50-90. From about 1866, an influential group of English thinkers brought to the fore the view that an education in natural science, already widespread abroad and in Scotland, was essential for the country's future. Leading figures included: Charles Darwin; the philosopher, scientist and liberal political theorist Herbert Spencer, a vocal antagonist of public schools; and the biologist Thomas Edward (T.E.) Huxley. Huxley, who became a school governor at Eton in 1879, argued that science taught an organised mind and essential powers of observation, classification and deduction.

²¹¹ Meadows and Brock (1975), p.102. In his testimony to the CC, Michael Faraday crisply refuted the contention that classics furnished pupils with 'transferable skills'. (CC: 'You would not consider that the minds of such men as you allude to, who have been highly trained and who have great literary proficiency, are in a state readily to receive such information as they are deficient in?... Faraday: 'I do not.')

²¹² Shrosbree (1988), p.65. In a letter sent during the inquiry to the Duchess of Manchester in 1862, Clarendon expressed his concerns. ('We have had before us all the best swells in science – Dr Carpenter, Sir Charles Lyell, Farraday (sic), Hooker, Owen and Max Müller... upon the deplorable neglect of physical science and natural history in our system of public education, and the national loss that is sustained... Can't you fancy all this being very interesting, when you consider the immense national importance of the education of the upper classes in these days of active and general competition, and the stick-in-the-mud system of our great public schools which places the upper classes in a state of interiority to the middle and lower? Heaven knows whether we shall be able to effect any good; but the existing state of things calls loudly for enquiry and reform.')

²¹³ CC (1964), Vol.1, p.32.

to insist that the schools in its remit build laboratories and appoint at least one science master for every 200 boys.²¹⁴

The Clarendon schools, however, responded reluctantly to these stipulations. Their reasons for procrastination were numerous. First and foremost was the fact that they saw their primary function as preparing students to study at Oxford and Cambridge, where science degrees had only been slowly introduced.²¹⁵ They also complained of: a lack of appropriate science teachers,²¹⁶ textbooks,²¹⁷ and space in the timetable,²¹⁸ as well as the cost.²¹⁹ Furthermore, as Shrosbree suggests, 'a gentlemanly mistrust of studies closely associated with trade and engineering'²²⁰ formed a clear part of their resistance.²²¹ By the time the Devonshire Commission on Scientific Instruction and the Advancement of Science reported in the mid 1870s progress had been moderate.²²² In this respect, Rugby was a notable exception.²²³ Frederick Temple,

²¹⁴ Meadows and Brock (1975), p.110.

²¹⁵ *ibid*, p.106.

²¹⁶ *Commission on Scientific Instruction and the Advancement of Science, Sixth Report, Parliamentary Papers*, Irish University Press reprints, Education Scientific and Technical: Vol.4, Session 1875, p.58. (Hereafter, the Devonshire Report). Being a graduate of Oxford or Cambridge was considered a pre-requisite to teach at a public school, which meant the pool of teachers was limited.

²¹⁷ Meadows and Brock (1975), p.108.

²¹⁸ *ibid*. The CC were not understanding: 'We are satisfied that of the time spent at school by nine boys out of ten much ... is quite possible to economise...'

²¹⁹ Devonshire Commission (1875), p.59. This argument was firmly dismissed by the Commission - '*science can be introduced at one tenth of the cost which is usually supposed to be that which is absolutely essential.*'

²²⁰ Shrosbree (1988), p.51.

²²¹ Many of the schools considered science of lesser worth well into the 20th century.

Eton College website (2015),

<http://www.etoncollege.com/userfiles/files/A2%20copy%20of%20Final%20Summer%20Statistics%202015.pdf>

At Eton, even in 2015, more boys in the sixth form studied Latin than Biology.

²²² Meadows and Brock (1975), pp.110-11. At this point, 62 of 128 endowed schools it heard from were teaching science, but only 13 had a laboratory. Like its predecessors, the Devonshire Commission (1875), p.59. bemoaned the state of affairs. ('considering the increasing importance of Science to the Material Interests of the country, we cannot but regard its almost total exclusion from the training of the upper and middle classes as little less than a misfortune.')

²²³ Hope Simpson (1967), p.26, pp.46-7. In 1858, the Trustees, 'it appearing that the study of Natural Science had been fairly established in the School by a trial of 8 years', ordered the erection of a science 'school' (i.e. classroom) to the design of George Gilbert Scott. The CC on its inspection of 1862 found natural philosophy (principally chemistry and electricity), being taught for two in-school lessons a week, recording that the

the head at the time of the Clarendon Commission, had himself taught Maths at Oxford,²²⁴ and, in 1859, after appointing J.M. Wilson²²⁵ to teach Maths at Rugby, had encouraged him to give science lectures. Temple vigorously defended the teaching of science.²²⁶

Elsewhere, newly established schools intended for the professional middle class were the earliest to take science teaching seriously. City of London was one of the first to teach theoretical science, introducing practical science lessons in 1838 and fitting up a basement corridor to become one of the earliest school science labs in England.²²⁷ Others soon followed. In 1844, the new building of the Liverpool Institute School²²⁸ included a laboratory and rooms for chemistry and Maths.²²⁹ Malvern College, founded with a 'modern' side in 1865, also had a laboratory,²³⁰ while Clifton College, under its founding head John Percival,²³¹ introduced science labs in 1867 becoming highly successful in winning science scholarships to Oxford and

Trustees had 'with exemplary liberality built a Physical Science Lecture Room and Laboratory and partly furnished both at a cost of over £1000 drawn from capital.'

²²⁴ Sandford (1907), p.32.

²²⁵ Mayor, H.B., rev. M. Curthoys (2004), 'Wilson, James Maurice (1836-1931)', *Oxford Dictionary of National Biography*, Oxford: Oxford University Press. Wilson had been Senior Wrangler (i.e. come top of the year) in Maths at Cambridge. In an influential book of 1868, *Essays on a Liberal Education* (1868), p.290, London: Macmillan, he himself defended the study of science: 'It cannot long be possible for us to... turn out men, professedly of the highest education, totally unfurnished with true scientific method and knowledge, totally unable to meet the shallowest arguments from a false philosophy of nature brought on the side of materialism or atheism.'

²²⁶ CC (1864), Vol.2, *Answers*, p.311.

²²⁷ Douglas-Smith. (1937/1965), p.67, p.83, p.189. City of London gave lectures on chemistry and other branches of experimental science from 1837, and, in 1869 a regular class for practical chemistry was introduced. Clay (1902/1906) p.170, Figs.112-115. In its new building of 1883, there was a large room for practical chemistry, a laboratory, a chemistry workshop and a large lecture hall for science.

²²⁸ Seaborne (1971), p.182.

²²⁹ *Illustrated London News*, 2nd March, 1844.

²³⁰ Seaborne (1970), p.258.

²³¹ Trafford (2009), pp.14-15. John Percival, who had studied classics and mathematics at Oxford, became founding head in 1862. The first 'natural philosophy' laboratory opened in 1867, and, by 1871, there were separate laboratories for physics and chemistry, in which pupils carried out practical work and special classes in zoology, physiology, botany, physical geography and civil engineering. In 1871, the magazine *Nature* claimed that Clifton was 'foremost if not positively the first' among schools teaching science.

Cambridge. By the 1870s, the leading middle-class day schools considered science facilities something to boast of and Dulwich College made much of its ample provision for science when it reopened in Barry's building.²³²

In elementary schools, science teaching was often neglected,²³³ but the impetus of state funding was to have a direct impact on improving the provision.²³⁴ In 1868, the powers of the Department of Science and Arts were extended allowing it to offer building grants for sciences as well as art,²³⁵ and, as a result, as Seaborne demonstrates, higher-grade elementary schools were often in the vanguard of providing scientific facilities.²³⁶

The significance of facilities for art instruction

At the time of the Clarendon Report in 1864, art instruction for boys in public schools, when available at all, was a marginal 'extra'. Henry Cole, the first General Superintendent of the Department of Practical Art,²³⁷ encapsulated the prevailing

²³² Blanch (1877), p.24. The new building had a large lecture theatre (capable of housing 250-280) for chemistry and physics, two 'well-fitted' chemistry laboratories and independent classrooms with apparatus for instruction in physics and anatomy, as well as a further classroom for instruction in geology and physical geography.

²³³ Marguerin (1864), p.94. Marguerin on his tour of 'middle-class schools' in 1864 found English schools unusually backward in this regard. 'L'enseignement des sciences d'observation n'occupe pas d'habitude une place importante dans les études; dans beaucoup d'écoles, il fait presque complètement défaut... C'est seulement dans certaines grandes écoles qu'il se fait, sur ces matières, des cours réguliers et distincts.' ('The teaching of observational science doesn't generally hold an important place in the curriculum; in many schools, it is almost completely absent... It is only in certain of the larger schools that you'll find regular and separate courses').

²³⁴ Seaborne and Lowe (1977), pp.13-14. The Devonshire report recommended the promotion of a few endowed schools in manufacturing areas into special science schools with boarding facilities and scholarships.

²³⁵ *ibid.*, p.14.

²³⁶ *ibid.*, p.15. Seaborne and Lowe argue that the provision of science facilities was to underline the physical distinction between elementary and secondary schools.

²³⁷ The department was established by Cole to improve standards of art and design education in Britain with reference to industry.

middle-class viewpoint, when he declared 'art is regarded as a luxury in education, permissible to girls, but unnecessary for boys'.²³⁸

While most of the nine schools inspected by the Clarendon Commissioners offered some provision, only Eton had designated facilities. Here, as Howard Staunton tells us, there was 'a room...fitted up with models', where drawing masters gave instruction in 'artistic, not elementary, drawing'. 'Practical geometry and Military Plan drawing', on the other hand, were taught in the Mathematical schools to 'anyone desirous to learn'.²³⁹ This succinct description summarised for contemporary audiences two very different strands of art education for boys. The first was an accomplishment, complementary to a liberal education in the classics; the second, a technical skill necessary for the pursuit of a career.

Prior to mass industrialisation, art instruction in the UK had largely been confined to the leisured classes, but, from the mid 18th century, there was a growing need to teach art with a practical application,²⁴⁰ and, alongside a significant expansion of art instruction for the professional middle class,²⁴¹ the first half of the 19th century saw a rapid growth in art education for artisans.²⁴²

²³⁸ MacDonald (1970), p.152.

²³⁹ Staunton (1865), p.28.

²⁴⁰ MacDonald (1970), p.36. The Society for the Encouragement of Arts, Manufactures and Commerce (now the Royal Society of Arts) was founded in 1754 to promote public art education. Its founder, William Shipley, stated 'that ye Art of Drawing is absolutely Necessary in many Employments, Trades and Manufactures, and that the Encouragement thereof may prove of great Utility to the public...'

²⁴¹ *ibid.*, pp.35-37.

²⁴² *ibid.*, pp.37-8.

Ultimately, commercial art education became a government concern.²⁴³ The first government-sponsored Schools of Design were launched in 1837,²⁴⁴ then, after the Great Exhibition of 1851,²⁴⁵ the industry-focused nature of art instruction was consolidated under the ruthlessly efficient direction of Henry Cole,²⁴⁶ who was responsible for public art education from 1852 till 1873.²⁴⁷ As is clear from a circular of 1858, the course in 'elementary drawing' devised by Cole's department²⁴⁸ had class-specific goals:

You should endeavour to disabuse persons of the notion that the kind of drawing which has been hitherto known as an accomplishment in schools for the rich, is that which would be taught under the present Minutes in schools for the poor. The kind of drawing which it is proposed to teach, is, in the strictest sense, an education of the eye, and of the hand, such as may indeed be the first step in the career of the great artist, but must at any rate enable the common workman to do his work more neatly and better.²⁴⁹

²⁴³ Pevsner (1940), pp.247-8. In 1835, a Parliamentary Commission was appointed 'to inquire into the best means of extending ... the principles of design among the people (especially the manufacturing population of the country)'.

²⁴⁴ *ibid.*

²⁴⁵ Efland (1990), p.59. Where Britain's industrial products were ranked among the lowest.

²⁴⁶ MacDonald (1970), p.140. Cole, an executive commissioner of the Exhibition, had played a significant role in promoting it. Already a successful civil servant, he fought for the establishment of a Department of Practical Art (later the Department of Science and Art), as a subsidiary of the Board of Trade.

²⁴⁷ *ibid.*, pp.157-61. This period saw the establishment of the first training school for art masters, the first Government art examinations and teaching certificates, the first state art education in elementary schools, and the first great museum of applied art, the South Kensington Museum (later the Victoria and Albert Museum).

²⁴⁸ *ibid.*, pp.159-60. 'Elementary Drawing in National Education was the new principle brought into activity in 1852,' stated Henry Cole. This course, consisting of eight stages, became known as the 'South Kensington system'. It remained in effect for the rest of the century.

²⁴⁹ *Minutes of the Committee of Council on Education* (1857-8), p.27; *Circular letter*, 27th February, 1858.

While Cole was schooling the nation in industrial usefulness and re-defining public taste in national exhibitions and collections to increase the demand for better-designed products,²⁵⁰ the study of fine art was developing in another direction. In 1868, three visiting professorships in Fine Art were established at Oxford, Cambridge, and London universities,²⁵¹ and John Ruskin, the 19th century's most influential writer on art,²⁵² became the first holder of the Oxford chair.²⁵³ Here, he propounded a view of art instruction radically different from Cole's,²⁵⁴ one which emphasised its spiritual and moral qualities rather than its material advantages.²⁵⁵

The audience that Ruskin addressed at Oxford contained both the products of and the future leaders of the major public schools, students who, as he put it, were not 'to be apprenticed to a trade, nor even always to be advanced in a profession; but always to be made a gentleman and a scholar'.²⁵⁶ Though Ruskin actively pursued art education for all,²⁵⁷ he felt the wealthier classes had a special obligation to

²⁵⁰ Marguerin (1864), pp.45-6. Marguerin, a Parisian headmaster, who wrote a report on English 'middle class' education, marvelled at Cole's decision to instruct the public in general rather than merely a specialist class of artisans, intending to 'éveiller dans tout un peuple le sentiment du beau qui y était comme endormi' (awakening in an entire people the feeling for beauty which lay dormant). By doing so, Cole believed the law of supply and demand would lead to good industrial practice.

²⁵¹ MacDonald (1970), p.269. Fine Art had never previously been a university discipline, but Felix Slade, a lawyer, landowner and collector, left money to found chairs of Fine Art at Oxford, Cambridge and University College, London.

²⁵² Efland (1990), pp.133-134. Ruskin's public career, begun soon after he graduated from Oxford in 1842, spanned more than half the 19th century. His works on art (*Modern Painters*, *The Seven Lamps of Architecture* and *The Stones of Venice*) expressed the view that the arts were the 'visible sign of national virtue'. They became standard volumes in middle-class homes.

²⁵³ Atwood (2011), p.57. His inaugural lecture was on 8th February, 1870.

²⁵⁴ Ruskin, J. (1903-1912), Vol.20, p.5. *The works of John Ruskin, vols. 1-38* (Cook, E.T. and Wedderburn, A. eds.) London: George Allen. 'The professorship of Sir Henry Cole at Kensington has corrupted the system of art teaching all over England into a state of abortion and falsehood...' For Ruskin, the system's flaw was that it considered design could be taught by rule.

²⁵⁵ Efland (1990), pp.134-7. For Ruskin, the moral purpose of art – giving expression to the creating spirit of the universe – was fundamental.

²⁵⁶ Ruskin (1903-1912), Vol.20, pp.18-19.

²⁵⁷ Atwood (2011), p.4.

develop their taste and use it wisely.²⁵⁸ At Oxford, he founded a drawing school providing instruction that was the antithesis of South Kensington.²⁵⁹

Ruskin's perspective was the one favoured by the major public boarding schools. Ruskin corresponded directly with Frederick Temple,²⁶⁰ who, in the wake of the Clarendon Commission, attempted to offer drawing to every boy at Rugby, commissioning a 'school' for drawing in William Butterfield's New Quadrangle.²⁶¹ His successor, Thomas William Jex-Blake,²⁶² established an art museum in 1879, 'in the hope', as he said, 'that leisure hours would be given by many boys to a delightful form of culture often too little thought of at home and school, and with the conviction that some few boys would draw great enjoyment, lifelong interest and a new faculty from it.' ²⁶³

Schools which prepared boys for professional life in the army (such as Wellington College) or medicine taught technical drawing from relatively early in the century, though designated space for instruction arrived more slowly. By the 1860s, the leading German and French schools that Robson was illustrating²⁶⁴ were all equipped with a 'drawing school' or 'drawing room', as were the American schools of

²⁵⁸ Ruskin (1903-1912), Vol.20, pp.27-8. 'I conceive it to be the function of this professorship... to establish both a practical and critical school of Fine Art for English gentlemen: practical, so that if they draw at all, they may draw rightly, and critical, so that they may both be directed to such works of existing art as will best reward their study and enabled to make the exercise of their patronage of living artists delightful to themselves by their consciousness of its justice, and to the utmost benefit to their country, by being given only to the men who deserve it.'

²⁵⁹ Ruskin, J. (1904), Vol.2, p.33, *Letters of John Ruskin to Charles Eliot Norton* (ed. Norton, C.E.), Boston: Houghton Mifflin.

²⁶⁰ Atwood (2011), p.62. Writing to Frederick Temple, on 5th September, 1857, Ruskin outlined what he considered the ideal method of integrating art education into general education.

²⁶¹ Hope Simpson (1967), p.50.

²⁶² *ibid.*, p.102. Head from 1874-1887, Jex-Blake had been a contemporary of Walker at Rugby.

²⁶³ *ibid.*, pp.106-7.

²⁶⁴ Robson (1874), p.64, p.66, p.92, p.96.

this date, but this feature only gradually began to appear in English secondary schools. Dulwich College, which employed three art masters and taught an extensive art programme,²⁶⁵ included only a small art department in its 1870 building,²⁶⁶ while the City of London building of 1883, where the head remained strongly resistant to the idea of a 'modern side',²⁶⁷ did not have a dedicated drawing room at all.²⁶⁸

Over the course of the final 20 years of the century, however, the provision of significant space for drawing became standard, so much so that, by 1906, the Board of Education Regulation for Secondary Schools²⁶⁹ stipulated that: 'In every school there should be a room or rooms properly constructed and fitted for the study of Drawing and Art... It is preferable, but not essential, that there should be a separate room for Advanced Drawing and Art.' Felix Clay's illustrations in *Modern School Buildings* indicate that this stipulation had, by then, been widely implemented.²⁷⁰

Facilities for physical education: playing fields, gymnasia and swimming baths

By the end of the 19th century, compulsory, competitive team games were considered to be one of the defining characteristics of a 'public-school' education,²⁷¹ helping to form character, manliness and 'esprit de corps'. The facilities available for

²⁶⁵ Blanch (1877), p.32, p.38. Here, instruction was given in: 'Freehand, Model, Mechanical and Anatomical Drawing, Practical Geometry, Perspective, Imitative Colour and Design.'

²⁶⁶ Seaborne (1971), Pl.231. Blanch (1877), p.32. Boys received 'two lessons of an hour each week', but additional instruction was available for those 'studying Drawing with a view to its direct application to any professional pursuit.'

²⁶⁷ Douglas-Smith (1937/1965), pp.284-286.

²⁶⁸ Clay (1902/1906), p.170, Pls.112-115.

²⁶⁹ Clay (1902/1906), Appendix B, p.507.

²⁷⁰ *ibid.*, p.154, Bedford Grammar School, 1891, had a small studio on the second floor, as did Lincoln Grammar School, 1884 (p.172. Pl.116); while the new building at University College School (opened 1907) (p.159, Pl.73) had a large art room (50ft by 24ft) on the first floor abutting the chemistry laboratories.

²⁷¹ Simon (1975), p.8. Simon considers that: 'Athleticism rapidly became established as "the essence of school life", with an all-pervasive influence which tended to undermine all the key professed aims.'

sport, therefore, became a critical factor in middle-class parents' choice of school and in the way schools were organised and designed.

The role played by team games was one of the greatest transformations which occurred in English public schools between 1860 and 1914 and its significance has been extensively analysed both in general works on 19th-century public schools and in more specialist texts. Competitive team games were, from relatively early in the century, seen by contemporary commentators as something unique to English public schools,²⁷² but, as Bamford has outlined, in the first half of the century, cricket and football matches were organised by boys for boys with no interference from staff.²⁷³ The evolution of sport from an unsupervised boy-driven leisure activity to a compulsory top-down strand of the curriculum has been well documented.²⁷⁴ In this regard, the seven Clarendon boarding schools,²⁷⁵ located in rural or semi-rural locations, provided a model for others, and it was the environment at these schools, disseminated particularly through the work of writers like Charles Kingsley,²⁷⁶ as well

²⁷² Arnold (1864/1892), p.14. Arnold painted a striking comparison between France and England. 'He (the French schoolboy) learns and practises gymnastics more than our schoolboys do; and the court in which he takes his recreation is somewhat more spacious and agreeable than we English are apt to imagine a court to be, but it is a poor place indeed... compared with the 'playing fields' of Eton, or the 'meads' of Winchester, or the 'close' of Rugby.' In Germany and France, secondary schools were generally in urban locations, and the approach to sport no doubt reflected this.

²⁷³ Bamford (1967) p.77. Bamford notes that heads in the early part of the century considered a boy's freedom to use his leisure as he wanted was 'not only a right, but essential to a growing independent spirit'.

²⁷⁴ Mangan (1981/2000), pp.22-3, p.75, pp.179-206. Mangan has demonstrated how G.E.L. Cotton, who became head of Marlborough College in 1852 after 15 years teaching at Rugby, sent out a 'circular' in 1853 that constituted a 'statement of intent to include games as part of the formal curriculum of the school'. He argues, however, that it wasn't until the 1870s and 1880s that, compulsory participation in games became widespread, and not till the 1890s that 'the rhetoric of cohesion, identity, patriotism and morality' had fully developed.

²⁷⁵ Mangan (1981). Mangan overturned the conventional wisdom that it was more recently-founded schools that were responsible for this shift. Honey (1977), pp.110-111. The new attitude to sport in these schools took its lead from Oxford and Cambridge, where sport became an increasing focus from the 1850s. By the 1890s, some colleges were awarding scholarships purely on sporting merit.

²⁷⁶ Newsome (1961), p.199, p.207. In the 1850s and 1860s, Charles Kingsley popularised his philosophy in a series of didactic writing (including his best-selling novels *Westward Ho!* and *Hereward the Wake*), which presented an idealised picture of healthy manliness.

as the 'public school novel'²⁷⁷ and, ultimately, the national press,²⁷⁸ which helped popularise a heroic ideal of manly Christianity.

Though schools varied considerably in their approach to team sports, certain influential headmasters, such as Edward Thring, in keeping with his philosophy that 'every boy can do something well', argued that 'Many a boy whom we must put at a low level in school redeems his self-respect by the praise bestowed on him as a games player'. Consequently, Thring aimed to provide 'as perfect an equipment as possible in cricket and football grounds and fives courts'.²⁷⁹ During the second half of the century, boarding schools that could afford to do so bought up land to accommodate this new emphasis,²⁸⁰ and enthusiastic parents and old boys often helped underwrite the cost of facilities,²⁸¹ playing a significant role in the architectural decisions related to sport.²⁸² Mangan argues that playing fields themselves became: 'significant symbols of security and elitism'.²⁸³

It is important, however, to disentangle the evolution of team games in boarding public schools from a more widespread concern for physical health, which, as Bruce Haley has demonstrated, became a major preoccupation throughout society in the

²⁷⁷ *ibid.*, p.212. Of these, the best-selling *Tom Brown's Schooldays* by Thomas Hughes – a semi-autobiographical account of the author's time at Rugby under Arnold – was one of the earliest and most influential. Hughes was a passionate advocate of the moral and physical value of games, believing it brought out 'manly' qualities, developed a spirit of companionship and taught boys to control their temper.

²⁷⁸ Haley (1978), p.127.

²⁷⁹ Parkin (1900), p.76, p.91.

²⁸⁰ Mangan (1981/2000), p.71. Between 1845 and 1900, Harrow expanded its playing fields from eight to 146 acres, Marlborough from two to 68 acres, and Uppingham, from two to 49 acres.

²⁸¹ *ibid.*, p.71. Harrow managed to collect £70,000 for athletic facilities through contributions from staff, old boys, friends of the school, parents and former pupils.

²⁸² *Rugby School Archive*. At Rugby, the boys who ran the cricket club were accorded a grant from the governors to fund the cricket pavilion they commissioned from William Butterfield.

²⁸³ Mangan (1981/2000), p.100.

mid-Victorian period.²⁸⁴ By the time of the Clarendon Commission²⁸⁵ and the Schools Inquiry Commission,²⁸⁶ the beneficial role played by exercise and games in health, both mental and physical, was widely acknowledged and, when the Clarendon Commission reported in 1864, it made clear that appropriate space for exercise was of particular concern in London,²⁸⁷ and the lack of self-contained outdoor space was one of the main drivers in its recommendations to relocate²⁸⁸ the London schools out of the city centre.

For educators outside the major boarding schools, playing fields, while desirable, were definitely not considered a necessity, and the requirement for healthy exercise could be more simply and cheaply met by the provision of a playground²⁸⁹ and some form of gymnastic equipment (and, for the fortunate, a designated gymnasium and specialist instruction). The advantages of gymnastics over team sports included the fact that it could be carried out on tight urban sites, in all weathers²⁹⁰ and could address the needs of every pupil.²⁹¹

²⁸⁴ Haley (1978), p.4. Haley ascribes the emphasis to several factors: the development of physiology as a distinct biological science; the emergence of physiological psychology, linking mind and body; and the belief that education should develop 'the whole man'.

²⁸⁵ CC (1864), Vol. 2, p.92. The CC asked each school: 'What athletic exercises are taught as part of the education; and, of these, which are extra and which compulsory?' They also asked 'what acreage' was allocated for outdoor 'amusements' and games, and what specialist staff were employed to supervise games. Mack (1941), p.41. The Commissioners applauded organised games for their benefit to health and the contribution they made to forming 'some of the most valuable social qualities and manly virtues'.

²⁸⁶ SIC (1868), Vol.3, p.306, p.319. At MGS, Frederick William Walker was asked about the existence of a playground and gymnasium, and whether 'drilling or any athletic exercises' were taught 'as part of the school system'.

²⁸⁷ CC (1864), Vol.1, p.50. 'Their only choice lies between confinement to the playground, when there is one, and liberty to walk in the streets of London, which are evidently not the most desirable place for boys to spend their leisure time.'

²⁸⁸ *ibid.*, Vol. 1., p.50.

²⁸⁹ Haley (1978), p.140. Lord Shaftesbury, who was appointed to the newly created Board of Public Health in 1848, was an advocate of playgrounds, physical education, gymnasiums and athletic festivals.

²⁹⁰ Robson (1874/1982), p.257.

²⁹¹ *ibid.*, p.262. Robson defended the gym against English critics. 'The practice ...would not in any way lessen the zeal for outdoor games and athletics of the national sort. And it might be the means of preparing many youths for joining in the latter who would, otherwise, never be able to do so.'

In *School Architecture*, E.R. Robson extols the long-established example set by Germany, where gymnastics had become part of the national curriculum with a specialist teacher the norm.²⁹² There, no school was 'regarded as complete without its Turnhalle' ²⁹³ and the exterior of school gymnasia were given the same architectural deference as the main school buildings²⁹⁴ with interiors finished to a high standard.

Robson knew of no gymnasia in English elementary schools,²⁹⁵ and was clearly unaware that the free-standing gymnasium had been a feature of English secondary schools for some time.²⁹⁶ Uppingham acquired its first purpose-built gymnasium in 1859,²⁹⁷ as did Brighton College,²⁹⁸ while, in the same year, Radley College imported a pre-fabricated corrugated iron cathedral intended for a colonial town for use as a gymnasium.²⁹⁹ Rugby treated the new facilities with the respect customary in Germany, commissioning a gym from William Butterfield.³⁰⁰ (It is, however, important to note, that at these schools, gymnastics was not, as in Germany, a

²⁹² *ibid.* 'The exercises are conducted by a regular master... and are studied with as much precision as any of the other school lessons.'

²⁹³ *ibid.*, p.245. A German regulation of June 1842 made physical education part of the national system of education. Elsewhere, Robson found instruction in '*scientific gymnastics*' widespread on the Continent. He devotes an entire chapter to the design and equipment of gyms.

²⁹⁴ *ibid.*, p.258. 'The external architecture... although without any pretensions, is yet not treated as though inferior to, or in some sense apart, from the school buildings themselves.'

²⁹⁵ *ibid.*, p.244.

²⁹⁶ Haley (1978). Haley dates the 'age of training' from the 1859 opening of Archibald Maclaren's Oxford University gymnasium, which featured in the *Illustrated London News*.

²⁹⁷ Parkin (1900), p.76, p.99.

²⁹⁸ Jones (1995), p.152.

²⁹⁹ Seaborne (1971), p.252.

³⁰⁰ Hope-Simpson (1937/1967), p.79. It opened in 1872.

compulsory part of the curriculum). In London, as the leading secondary day schools relocated to new buildings in the 1870s to 90s, each acquired a gym.³⁰¹

Swimming instruction had always enjoyed peripheral significance in education,³⁰² but facilities for swimming, as well as some swimming instruction, were introduced in the public boarding schools early on, particularly at those near a body of water.

Swimming baths were, of course, costly to build and operate, and, though the boarding schools started to build these from the last quarter of the century,³⁰³ contemporary education rules expressly prevented elementary schools from spending money on swimming,³⁰⁴ again underlining the social distinction evident in most aspects of sports provision.

CONCLUSION

This chapter examined the complex way in which a new conversation about secondary-school design gradually emerged in the mid 19th century, a conversation that was to become closely intertwined with state intervention in the development of the curriculum and distribution of secondary-school provision for various strands of the middle class.

³⁰¹ Seaborne and Lowe (1977), p.42. Merchant Taylors' acquired one with its move to the old Charterhouse site in 1872; Clay (1902/1906), p.170, Pl.112-115. City of London was furnished with a large basement gym and six fives courts alongside a playground on its move to its new site.

³⁰² CC (1864), Vol.1, p.41. The CC were encouraging but hardly prescriptive ('It is much to be wished that every boy who goes to school should, if possible, learn to swim').

³⁰³ Love (2008), pp.76-84. Rugby was one of the first to build a purpose-built bath, opened in 1876. Charterhouse acquired one in 1883.

³⁰⁴ *ibid.*, pp.88-9. The London School Board argued that swimming was the equal of military drill for promoting student fitness and had proposed building school swimming baths as early as 1872. Schools under its jurisdiction were the first to be allowed to include swimming as part of their curriculum in December 1890.

Here, I established that the two mid-century Royal Commissions charged with investigating secondary schools were centrally concerned with the condition of the school fabric, the siting of schools, and with developing the curriculum in ways that affected infrastructure.

The last was of particular significance. The focus of both Commissions was to raise standards by expanding the curriculum from a narrow, predominantly classical, base to incorporate 'modern' subjects, which would bring English secondary education into line with competitor nations such as Germany and France. The introduction of new subjects, particularly science, inevitably entailed the provision of new facilities.

Legislation enacted in the wake of the Commissions resulted in legally-binding individual 'schemes' drawn up for each of the country's 'endowed' secondary schools. These schemes generally entailed specific instructions about siting and infrastructure.

Methods of school organisation and teaching also evolved during the period, again resulting in widespread alterations to school design. Due to the rapid expansion of the school-age population, much larger numbers of pupils were taught in individual schools, which, again reflecting Continental example, went from teaching all pupils in a single large room to teaching smaller numbers of pupils in individual classrooms. This transition was accompanied by the development of alternative space for collective meeting in the form of the Assembly Hall; while the school's responsibility for pupils' health was increasingly demonstrated in the introduction of expanded facilities for sport, such as playing fields and gymnasias.

The form and arrangement of infrastructure, however, was never centrally dictated and views about what was required evolved piecemeal, deriving from a broad range of sources. A number of influential commentators, who were themselves in a powerful position to implement new ideas, performed a significant role in disseminating revised models.

In the following chapters, I examine the impact that both legislation and contemporary thinking about school design were to have on St Paul's.

CHAPTER 5: THE SCHEME FOR ST. PAUL'S SCHOOL, 1876-1879, THE ROLES PLAYED BY THE ROYAL COMMISSIONS AND THE SCHOOL GOVERNORS

INTRODUCTION

The rebuilding of St Paul's School between 1878 to 1884 marked a decisive moment in its history, allowing it to develop from a small, non-selective, fully-maintained school with a narrow curriculum¹ and moderate academic outcome² into a large, selective, partially fee-paying school³ with a much broader curriculum and outstanding academic outcome.⁴ This transition took place at a time of extensive educational reform, and in this chapter I address the immediate impact of legislation on the decisions taken at the school, examining, in turn, the role played by the two Royal Commissions tasked with investigating the school and developing the scheme under which it was rebuilt, and that of the school governors, equally involved in defining the terms of the scheme and responsible for managing the detail of the relocation and reconstruction.

¹ Mead (1990), p.70, p.77, p.62. Between 1814 and 1876, only the 153 Foundation scholars outlined in John Colet's original bequest were admitted, with the only test on admissions basic literacy. Pupils paid no fees, and places were particularly valued because of the leaving exhibitions tenable at Oxford and Cambridge. When Frederick William Walker took over as head in 1877, the school taught only classics, Mathematics and some French; junior boys not taking French studied some history and geography.

² CC (1864), Ch.5, p.195. Out of about 25 boys in the highest form, 'The number of boys leaving St Paul's for the universities is not more than six or seven annually (in 1862 it was only two)...The list is respectable and would seem to prove that the system and mode of classical and mathematical instruction is sound'. In modern terms, this may be viewed as an Ofsted 'good'.

³ Mead (1990), p.77, p.72. Numbers rose to about 220 in the old school; the new school was intended for 1000. In September 1876, six boys were admitted as fee-paying 'Capitation Scholars'; after the move, the majority of pupils fell into this category. The first examination for entrance scholarships was held in January 1877.

⁴ Honey (1977), pp.245-6. Between 1885-92, St Paul's won 100 awards (scholarships) to Oxford and Cambridge.

Here, I establish how far and in what way the priorities of the Clarendon Commissioners, who initially investigated St Paul's, differed from those of the Charity Commissioners, ultimately responsible for the scheme under which the school was rebuilt, and how this difference of perspective was to affect the intake, curriculum and form of the new school. This chapter examines the way legislation affecting the composition of the governing body is likely to have influenced the governors' approach to curriculum and infrastructure. Finally, before outlining the considerations taken into account when selecting the site for the new school, I analyse the pivotal role played by Lord Selborne, chair of governors and member of the building committee, through his broader political and personal concerns.

THE BACKGROUND TO THE SCHEME

St Paul's School in the City and the relevance of its foundation statutes

St Paul's School was founded in the City of London adjacent to St Paul's Cathedral in the early 16th century.⁵ Its founder, John Colet, Dean of the cathedral, was an influential figure in early humanism⁶ and an extremely wealthy man,⁷ who furnished the school with a substantial endowment and left detailed, legally-binding statutes about how he wished it to operate administratively, financially and educationally in perpetuity. In his statutes of 1518, Colet outlined an intellectually rigorous

⁵ McDonnell (1909), pp.22-23. There has been dispute amongst historians of the school about whether the school endowed by John Colet was a new school or the continuation of an existing cathedral grammar school.

⁶ Trapp, J. B. (2004), '*Colet, John, 1467-1519*', *Oxford Dictionary of National Biography*, Oxford: Oxford University Press

⁷ Sutton, A.F. (2004/2008), '*Colet, Sir Henry (c.1430-1505)*', *Oxford Dictionary of National Biography*, Oxford: Oxford University Press. John Colet was the sole surviving child of Sir Henry Colet, a wealthy and powerful merchant, who was MP for London, twice Lord Mayor and three times Master of the Mercers.

programme to be supplied to a cosmopolitan urban intake.⁸ At the outset, he directed that the governance of the school and the supervision of its endowment be put in the hands of the City guild, the Mercers' Company,⁹ who have remained involved with the school as governors into the 21st century.¹⁰

Colet's objectives were of particular relevance to the rebuild in the 19th century, when government reformers sought to restructure charitable endowments to meet contemporary educational needs. At this point, the statutes written by the founders of endowed schools were carefully considered, and while, in many instances, were considerably adapted, the reformers believed they had neither the legal nor moral right to disregard them entirely.

Colet's original school building of 1508/9,¹¹ an impressive structure,¹² was destroyed in the Great Fire of London,¹³ and rebuilt on the same site in 1670-71 to a design by Edward Jerman.¹⁴ By the early 19th century this building had become so dilapidated that a third building was erected, again on the same site, in 1824.¹⁵ The design, by

⁸ Colet, J. (1518), *Statutes*, in Lupton, J.H. (1887/ 1909), addendum to *A Life John Colet, D.D. of St Paul's and Founder of St Paul's School*, London: G. Bell and Sons. Lupton made a copy of the statutes held by the Mercers.

⁹ Watney, J. (1914), p.35. *An Account of the Mistery of Mercers of the City of London, Otherwise the Mercers' Company*, London: Blades, East and Blades. From early on, the sons of Mercers became 'entitled to the freedom'. Trapp (2004). Colet himself was admitted to the Company in 1508.

¹⁰ <https://www.mercers.co.uk/independent-schools> (downloaded 25th May, 2018). The Mercers' Company continue to appoint the chair of governors and all but two of the governors.

¹¹ *Evidences of Dean Colet's Lands*, in McDonnell (1909), p.59.

¹² Erasmus of Rotterdam (1519), p.27. *The Lives of Jehan Vitrier and John Colet*, Lupton, J.H. (tr.) (1883), London: George Bell and Son. Erasmus, who was closely involved with Colet's foundation, described it as a 'splendid structure'; McDonnell (1909), p.67. Two other contemporary writers, Alexander Nevyl and Polydore Vergil, both thought it a 'magnificam scholam'.

¹³ Pepys, S. (1669/1947), p.337, *The Diary of Samuel Pepys, 1660-1669*, London: G. Bell and Sons.

¹⁴ Collins, H. (2004), pp.149-50, *Edward Jerman 1605-1668, The Metamorphosis of a Master Craftsman*, Cambridge: The Lutterworth Press.

¹⁵ McDonnell (1909), p.390.

the Mercers' surveyor, George Smith,¹⁶ was in the fashionable neo-classical style (**FIGURE 12**) and cost the not inconsiderable sum of £23,000,¹⁷ but, aside from the addition of an underground playground,¹⁸ the internal arrangements remained much as they had at the foundation.

By this juncture, it was acknowledged that the school's lack of boarding facilities and playing fields had become a disadvantage, but the legal position of Colet's will and the school's long association with the City meant there was no serious consideration of a move. This was a perspective that had altered by the time the Clarendon Commissioners inspected the school in 1862.¹⁹ Even so, the appointment of the Clarendon Commission to an oversight role was unwelcome. While the Mercers, unlike the governors of some of the other 'Great Schools', had never experienced serious criticism for their management of the endowment, they unequivocally resisted intrusion into what they considered their private affairs, arguing that: 'most of their valuable charities would never have been endowed had the donors contemplated the possibility of the corporation of which they were members being interfered with in the management of their bounty or deprived of its control'.²⁰

The recommendations of the Clarendon Commissioners

¹⁶ Summerson (1945/1978), p.233, pp.266-7. Smith was also responsible for: The Corn Exchange; the Whittington College in Highgate; and the Mercers' School in the City.

¹⁷ McDonnell (1909), p.390.

¹⁸ Mead (1990), p.57.

¹⁹ McDonnell (1909), p.414. By the time of the CC, the Mercers had already taken the first steps to obtain legal permission to move.

²⁰ Doolittle, I. (1994), p.149, *The Mercers' Company 1579-1959*, London: The Mercers' Company. Mercers' Accounts, quoted in Doolittle.

The Clarendon Commissioners visited St Paul's on 2nd July, 1862, and the report resulting from this inspection summarised Colet's intentions in some detail²¹ before going on to analyse the existing provision and make specific recommendations for improvement and for '*application of the surplus revenue*'.²² The Commissioners' directions included the establishment of competitive entrance²³ and the introduction of additional teachers (including a '*lecturer in natural science*'),²⁴ but their opprobrium was largely directed towards the site.

As noted in Chapter 4,²⁵ both the Clarendon Commissioners and the Schools Inquiry Commissioners were concerned about the location and physical condition of schools, and St Paul's inner-city site was condemned by the Clarendon Commissioners²⁶ for: its lack of access to outside space for exercise; the potential exposure it allowed to unsavoury inner-city influences; and the level of external noise, which, the Commissioners felt, made teaching and learning problematic.²⁷ With these reservations in mind, they declared: 'The present site at the east end of St Paul's churchyard appears to us in itself objectionable.'²⁸

²¹ CC (1864), Vol. 1, Ch.5, pp.187-8.

²² *ibid.*, p.196.

²³ *ibid.*, p.201.

²⁴ *ibid.* Other staff to be funded from the endowment included: a German teacher, and a teacher/s for music and drawing.

²⁵ See Ch.4, pp.101-107.

²⁶ CC, *Report*, Vol. 1, p.50. Apart from St Paul's, whose intake was fixed, all the London schools, it argued, had witnessed declining numbers due to this factor.

²⁷ *ibid.*, Vol.1, Ch.5. p.198. 'Great interruption, it appears, is occasioned by the noise of the traffic outside...We cannot but think that the effects of such a condition of things upon the progress, the faculties and in some degree upon the bodily health of the school must be injurious.'

²⁸ *ibid.*

The Commissioners paid due attention to Colet's intentions in this matter,²⁹ but concluded that the Dean would not have chosen the same site had he established the school in the 19th century.³⁰ They, therefore, recommended a transfer to: 'a considerably larger plot of ground ... in a less frequented and therefore more suitable part of the metropolis'.³¹

In terms of the additional space required, however, their suggestions were modest:

A few, say four acres, of land by way of a playground would be an inestimable advantage, but, if that were unattainable, even room for a fives court or two with something in the nature of a cloister for wet weather and an open area for walking or running about and for gymnastic exercises in the intervals of school, would be a great improvement upon the present state of things.³²

They also made proposals for the external and internal design of the putative school, placing particular emphasis on the latter,³³ and stressing that the interior should emphasise the historic links with the foundation.³⁴ It is of note that they did not envisage the need for any radical alteration of the existing plan and facilities,³⁵ apart

²⁹ Mack (1941), p.30. Mack argues that the CC, whose ideal was 'modern business efficiency', believed rigid statutes were a menace to growth. It stated that: 'the most extensive powers of adaptation and amendment should exist in all cases', and deemed it acceptable to modify statutes whenever the general objectives of the schools' founders were not being fulfilled or when modern society demanded new objectives.

³⁰ CC (1864), Ch.5, p.198. Alfred Ollivant, Bishop of Llandaff, an Old Pauline, remarked in his testimony: 'the site is so objectionable that if the same reasons had existed three centuries ago, he cannot persuade himself that Dean Colet would have selected it. Nor does he think that the spirit of his will or his intention in founding the school would be violated by a mere transfer of the site.'

³¹ *ibid.*, p.199. Purchased, they suggested, with proceeds from the sale of the existing site ('recommended by one competent witness at £60,000'), and benefitting from 'Healthiness, quiet and accessibility'.

³² *ibid.*

³³ *ibid.* 'As we recommend a retired site, high architectural embellishment would be unnecessary and the building funds should be devoted as much as possible to securing the very best internal accommodation.'

³⁴ *ibid.* 'The memories of the past would be preserved by the existing, and perhaps a few additional, busts of distinguished Paulines, and by other simple expedients.'

³⁵ *ibid.* '...a principal school room, plain but imposing from its dignified proportions, would leave the architectural taste of the scholars uncorrupted if not improved.'

from the introduction of an 'ample supply of classrooms' ,³⁶ a library capable of 'containing a large addition to the present collection' ³⁷ (both of which were considered 'indispensable'), somewhere for pupils to eat lunch³⁸ and the inclusion of some scientific 'apparatus'.

A central strand of both the Clarendon Commissioners' and the Schools Inquiry Commissioners' remit was to examine whether the schools' endowments were being efficiently administered,³⁹ and the Clarendon Commissioners expressed concern about the limited use being made of Colet's ample provision.⁴⁰ Here again, however, their recommendations for improvement were restrained, suggesting only a gradual increase in pupil numbers to 500,⁴¹ and a building that could be extended over time to accommodate this.⁴²

In the context of this thesis, it is important to note that the Clarendon Commissioners confirmed St Paul's continuing existence as a day school.⁴³ This is of particular significance because it has been a widely disseminated view amongst historians of education that the definition of a public school which emerged in the wake of the Public Schools Acts (1868) involved boarding. (Indeed, some have, incorrectly, suggested that St Paul's was omitted from the Public Schools Act because boarding

³⁶ *ibid.*

³⁷ *ibid.*

³⁸ *ibid.* '...we think ... that means should, if possible, be found of providing, at any rate luncheon, if not plain dinner, on the premises.'

³⁹ SIC (1868), Vol.1, p.619, p.661. 'The whole country has an interest in these endowments, and has a right to know how the property is being used, and whether the results are commensurate with the means...'

⁴⁰ CC (1864), Vol.1, Ch.5, p.196.

⁴¹ *ibid.*, p.199.

⁴² *ibid.* 'We mention 500 as the number of boys which the buildings should accommodate, but it would not be necessary, nor perhaps desirable, that this number should be reached at once... the buildings might be contrived as to admit of future increase.'

⁴³ Haig Brown (1879), p.171. Unlike its sister City school Charterhouse, which they believed would 'thrive much better if removed to some eligible site in the country.'

was a pre-determining condition of inclusion.)⁴⁴ At a time, however, when there was every reason to believe that St Paul's would be included in any legislation,⁴⁵ the Clarendon Commissioners argued that:

Dean Colet must be held to have designed a special benefit for the inhabitants of the metropolis, native or foreign. And that this benefit was intended by him to be conveyed through the agency of a day school, to which the dwellers in London were to have access for the purpose of acquiring the highest literary culture available in his time.⁴⁶

The only reason for diverging from Colet's intentions, they found, would be if, firstly: 'That London is in no want of extended means of classical education'; and if, secondly: 'whatever this need may be a suitable metropolitan site is absolutely unattainable'.⁴⁷ This is clear evidence that, for those establishing the new legal definition of the term 'public school', boarding was not a pre-requisite, and, equally, that St Paul's was deemed to fall within the definition.

The impact of the transfer to the remit of the Endowed Schools Act

⁴⁴ Seaton (1911), p.149.

⁴⁵ Shrosbree (1988), p.119. Though St Paul's and Merchant Taylors', both day schools, were excluded from the Act, this was not because they were day schools, and, as Shrosbree notes: 'There is no evidence that either ... lost their claim to public school status' in the process.

⁴⁶ CC (1864), Vol.1. Ch.5, p.198.

⁴⁷ *ibid.*

Though St Paul's was initially investigated by the Clarendon Commissioners, a legal dispute about its authority over the Coletine endowment⁴⁸ not settled until after the passing of the Public Schools Act in 1868⁴⁹ meant it was ultimately rebuilt under a scheme devised by the commissioners responsible for implementing the Endowed Schools Act (1869).⁵⁰ These commissioners specifically addressed the schools not included in the Public Schools Act⁵¹ and their remit was far more radical in its ambitions than that of the Clarendon Commissioners.

Meetings with the Endowed Schools Commissioners⁵² began in 1873⁵³ and negotiations about a new scheme⁵⁴ and the re-allocation of the endowment's funds⁵⁵

⁴⁸ Doolittle (1994), pp.149-152, p.151n, p.234, n.42. A complex legal battle begun in the early 1860s involved the Charity Commission in the status of the St. Paul's School trust. At this juncture, the Mercers claimed outright ownership of the Coletine estate, but, in February 1870, after a four-year case in Chancery, it was decided they, in fact, held the estate and property entirely for the use and benefit of the school. As Doolittle notes, the Company had, in practice, devoted the entire income from the trust to the school. Shrobbree (1988), p. 191, p.199, p.210 (n.67). Due to the Chancery case, the Mercers' Company requested exclusion from the Public Schools bill, but were only excluded after a narrow vote.

⁴⁹ Shrobbree (1988), p.177, p.191 (*Lords Select Committee Report 1865*, 15th May, 1865, pp.ix-xi). St Paul's was, in fact, included in the first reading of the Public Schools (No 32) Bill on 13th March, 1865, and its second reading on 3rd April, 1865. Doolittle (1994), p.152, p.234, n.44. Though the Mercers' then tried to obtain a separate Act of Parliament to secure public-school status, they failed to do so.

⁵⁰ Simon (1960/1966), p.328. Initially, these were the Endowed Schools Commissioners, who published 317 schemes, but provoked considerable resentment, particularly in their remodelling of governing bodies. In 1874, after the accession of a Tory government, they were replaced by the Charity Commissioners.

⁵¹ Seaton (1911), pp.149-150.

⁵² *ibid.* As Seaton suggests and seems highly likely, who 'may have made use of information obtained from the inquiry and report of the Public School Commissioners'.

⁵³ Doolittle (1994), p.152.

⁵⁴ *ibid.*, pp.152-3. Initially, the Commissioners recommended: the relocation of the school elsewhere in the metropolitan area and the subdivision into two boys' schools dealing with classical and modern subjects, either separately or by departments in the same school, and one (possibly two) girls' schools. Though the 153 foundation scholarships would be retained, these would be subdivided between boys and girls (with 105 to boys and 51 to girls), and provision would be made for fee-paying pupils.

⁵⁵ *ibid.* Here, the starting position was that two thirds of the endowment was to be allocated to the boys' school(s), and one third to the girls' school(s). The Company wanted the allocation of the income and award and distribution of scholarships (a valuable form of patronage) left to the them, with no more than a quarter of the income allocated to the girls' school(s). The Commissioners were ready to limit the income allocated to the girls' school(s), but continued to insist that foundation scholarships should be awarded by competitive examination, striving to introduce students from lower-grade schools and reduce 'the aristocratic element'.

continued for several years. These negotiations resulted in the scheme of 1876,⁵⁶ which, in a modified form, was the scheme under which the new school was built.

The negotiations largely revolved around: the degree of power the Mercers were to retain in the governing body; the extent to which the re-allocation of the endowment should provide for both a 'modern' education and education for girls; the introduction of competitive entrance examinations for foundation scholarships to ensure a fairer and more inclusive means of admissions; the introduction of fees for pupils not on foundation scholarships; and the relocation of the school. During the negotiations, the Mercers were particularly wary of diluting Colet's original benefaction for St Paul's for the sake of these modifications.⁵⁷

The scheme agreed in 1876 determined that the foundation should, ultimately, provide: a Classical School, to be called St Paul's School, for about 500 boys; a Modern School, to be called St Paul's Modern School, for about 500 boys; a High School or High Schools for (not less than 400) girls to be called Dean Colet's School or Schools.⁵⁸ Section 84 of the 1876 Scheme, however, allowed a further option.⁵⁹ Instead, of a Classical School for boys and a Modern School for boys, a single school for about 1000 boys, consisting of a Classical department and a Modern Department could be established under a single High Master (head).⁶⁰ In May 1878,

⁵⁶ *ibid.*, p.153. The scheme came into force in March 1876.

⁵⁷ Doolittle, p.153.

⁵⁸ *ibid.*, pp.151-2. The Governors could decide on the order in which these were built. Provision was also made for entrance examinations, the subjects of instruction in each school and allocation of the 153 scholarships retained for boys. The last were to be divided equally (77 to the Classical School, 76 to the Modern) and awarded by competitive examination. At that juncture, there was a requirement that the girls' school(s) would receive no less than one quarter of the trust's net income.

⁵⁹ *ibid.*, p.153.

⁶⁰ *ibid.* The governors could determine the extent of the powers and the jurisdiction of the High Master over the Modern Department.

the governors chose to exercise this option.⁶¹ This decision was taken eighteen months after the arrival a new High Master, Frederick William Walker.⁶² There is, however, no indication that Walker himself was involved with this critical resolution. Indeed, his own testimony credits Lord Selborne (*see below*) with responsibility for the decision.

THE DEVELOPMENT OF THE 1879 SCHEME UNDER WHICH THE NEW ST PAUL'S BUILDING WAS CONSTRUCTED

The role played by the school governors

The perceived failing of school governance was one of the key factors in the establishment of both the Clarendon Commission and the Schools Inquiry Commission, and both the Public Schools Act and the Endowed Schools Act led to a significant re-composition of governing bodies.⁶³

Until the mid 1870s, St Paul's, as it had been from its foundation,⁶⁴ was governed exclusively by the Mercers' Company,⁶⁵ then as now, the City of London's foremost livery company.⁶⁶ The company administered a substantial portfolio of property left

⁶¹ *ibid.*, pp.153-4, p.191. The Charity Commissioners then drew up a new scheme introducing the alterations, which came into force in July 1879 and remained in force until 1900. One of the most significant changes was the relationship between the High Master and the proposed Head Master of the Modern School, who was to be 'subject to the general superintendence and control of the High Master'.

⁶² *MM.*, 27th October, 1876. Walker was appointed in October 1876, and arrived at the school in January 1877.

⁶³ Shrobbree (1988), p.17, p.178, p.180. Governing bodies were based on existing ones, but with additional members distinguished by their 'literary or scientific attainments'.

⁶⁴ Doolittle (1994), pp.2-3.

⁶⁵ *ibid.*, p.6. The Mercers' Company's original purpose had been to act as a trade association for general merchants and especially for exporters of wool and importers of luxury fabrics.

⁶⁶ Engel, M., 'English Institutions: Livery Companies', *The Financial Times*, December 21st, 2012. Livery Companies have an order of precedence, and, the Mercers stand at No 1 among 'The Great Twelve'. A particularly wealthy company, in 2012, they had a property portfolio of over £500m.

by its members,⁶⁷ but Colet's bequest for St Paul's was one of its most prestigious and valuable trusts. As property prices rose dramatically in the mid-19th century,⁶⁸ Colet's legacy, largely invested in land, had produced a growing surplus, and, in 1856, the Mercers had taken legal advice about how to make better use of this.⁶⁹ They found, however, as had other endowed schools, that, without an Act of Parliament, the terms of the trust meant their options were limited. Though they could increase the number of boys on the foundation, they had no power to move the school from St Paul's Churchyard, sell the ground on which it stood, purchase other grounds and erect a school outside the metropolis, or employ the excess to provide boarding facilities. The new scheme freed them from these constraints, though not in the way envisaged.

As the Clarendon Commissioners had acknowledged, the Company had dealt scrupulously with the Pauline bequest,⁷⁰ and, ultimately, the 1876 scheme determined that all the property of the foundation was to remain vested in the Mercers' Company or their Court of Assistants⁷¹ and that the Master of the Company would continue to act as *ex officio* chairman of the school's board of governors.⁷² The governing body, however, was to be re-organised. The Mercers would retain the

⁶⁷ Lang, J. (1975), p.29, p.48, *Pride Without Prejudice, The Story of London's Guilds and Livery Companies*, London: Perpetua Press. In the Middle Ages, the companies had grown wealthy through 'mortmain' – the right to hold property in perpetuity – and liverymen would add to that wealth by bequeathing money or land. Early in their history the livery companies had become primarily institutions of philanthropy and social engagement.

⁶⁸ Doolittle, I.G. (1982), p.91, *The City of London and Its Livery Companies*, London: The Gavin Press.

⁶⁹ McDonnell (1909), pp.412-13.

⁷⁰ CC (1864), Vol.1, Ch.5, p.188. The CC stated that the Mercers 'have managed the property for many years past with a view solely to what they have considered the interests of the school. The enormous increase in value is itself evidence of pure and diligent administration; nor do we conceive that better care would have been taken of the property by any other body to which Dean Colet entrusted it.'

⁷¹ Seaton (1911), p.150. Livery Companies are governed by a Master, a number of wardens and a Court of Assistants, which elects the Master and wardens.

⁷² *ibid.*

right to appoint 13 of the 22 governors,⁷³ but nine new governors were to be introduced from the universities of Oxford, Cambridge and London (three from each university).⁷⁴

As David Kynaston has shown,⁷⁵ during this period the City of London, run largely by the London and Home Counties haute bourgeoisie,⁷⁶ prided itself on being a meritocracy,⁷⁷ but it was also '*a tight-knit, interconnected society... of overlapping elites*' where '*blood mattered*'.⁷⁸ Nowhere more so than in the Mercers' Company. During the period of the relocation and rebuild,⁷⁹ the governing body of St Paul's was largely composed of men with generations-old associations with the Company,⁸⁰ and the office of Master of the Mercers (and so chair of governors of St Paul's) was filled by seven members of just two families: the Watneys and the Palmers.⁸¹ The Watney family⁸² derived their considerable fortune from brewing, and the three members of the Palmer family (Frederick,⁸³ Edwin⁸⁴ and his brother Roundell) were respectively, a soldier, a Professor of Latin and Archdeacon, and, as will be discussed below, a

⁷³ Doolittle (1994), pp.152-3. The initial proposal from the Endowed Schools Commissioners had been a governing body of 20, of whom 11 would have been Mercers.

⁷⁴ *ibid.*, p.151.

⁷⁵ Kynaston, D. (1994), pp.293-4, *The City of London, Vol.1, A World of its Own, 1815-1890*, London: Chatto & Windus.

⁷⁶ *ibid.*, p.202.

⁷⁷ *ibid.*, p.289.

⁷⁸ *ibid.*, p.294.

⁷⁹ 1873-1884.

⁸⁰ Doolittle (1994), pp.182-3.

⁸¹ Mercers' Company Archive. (The dates given are the date of election for office in the following year.) 1873, John Watney; 1875, Roundell Palmer, 1st Earl of Selborne; 1878, Frederick Palmer; 1879, James Watney; 1880, Norman Watney JP DL; 1881, George Palmer; 1883, Archdale Villiers Palmer.

⁸² James Watney was a Conservative MP and played cricket for Surrey; Norman was a Justice of the Peace and Deputy Lieutenant for Kent.

⁸³ MM, 10th May, 1878. Frederick Palmer is listed as Lieutenant Colonel.

⁸⁴ Wheeler, R. (2006), p.70. *Palmer's Pilgrimage: The Life of William Palmer of Magdalen*, Oxford: Oxford University Press; Leighton, D. (2004), *The Greenian Moment: T.H. Green, Religion and Political Argument in Victorian Britain*. British Idealist Studies 3: Green, Imprint Academic. Edwin Palmer (1824-1885), Roundell Palmer's younger brother, was Corpus Professor of Latin at Oxford from 1870-1878, and archdeacon of Oxford from 1878 to his death. A fellow of Balliol College, he was one of an influential group of liberal theologians that included Benjamin Jowett, T.H. Green and William Lambert Newman.

leading lawyer and politician. Other Mercer governors included: Mark Barland,⁸⁵ a military man whose family had been associated with the Mercers for 14 generations, and Joseph Blakesley, who had been educated at St Paul's before rising to considerable eminence in the church and classical scholarship.⁸⁶

The university-appointed governors (Sir George Jessel, William Wolfe Capes, Archdeacon James Augustus Hessey and William Benjamin Carpenter) added, as was the intention, an alternative perspective to this socially intertwined body.

Though some were drawn from a predictable pool (Hessey, for example, 'a *scholarly and urbane*' clergyman, had been headmaster of neighbouring London public school Merchant Taylors',⁸⁷ and William Wolfe Capes, an old boy of St Paul's, was a fellow and tutor of Hertford College and University Reader of Ancient History),⁸⁸ others were representatives of the 'modern' side. William Benjamin Carpenter, a qualified doctor, was the long-serving registrar of University College (where he contributed notably to the creation of science degrees) and President of the British Association for the Advancement of Science.⁸⁹ Sir George Jessel, the first Jew to become Attorney General and achieve high judicial office as Master of the Rolls, had also

⁸⁵ *Galleywood Historical Society*, No. 35 - September 2011. Barland entered the army before going on to become Gentleman at Arms to Queen Victoria.

⁸⁶ Chisholm, H.(ed.) (1911), *Encyclopaedia Britannica* 4 (11TH ed.), Cambridge: Cambridge University Press. Joseph Blakesley was Dean of Lincoln Cathedral and author of the first English life of Aristotle (1839).

⁸⁷ Cooper, T., rev. Curthoys, M.C. (2004), 'Hessey, James Augustus (1814-1892)', *Oxford Dictionary of National Biography*, Oxford: Oxford University Press. The son of a bookseller and printer, Hessey, had attended Merchant Taylors' School and Oxford, where he became a fellow. Headmaster of Merchant Taylors' from 1845 to 1870, he oversaw a period of '*unspectacular modernisation*', before his appointment to the prebendal stall of Ogate by Archibald Tait. He married the daughter of stockbroker Philip Cazenove.

⁸⁸ Magrath, J.R., rev. Baigent, E. (2004), 'Capes, William Wolfe (1834-1914)', *Oxford Dictionary of National Biography*, Oxford: Oxford University Press.

⁸⁹ Smith, R. (2004), 'Carpenter, William Benjamin (1813-1885)', *Oxford Dictionary of National Biography*, Oxford: Oxford University Press. William Carpenter trained at Bristol medical school, followed by London and Edinburgh. He was appointed to the Fullerian professorship in physiology at the Royal Institute in 1844, and from 1856 to 1879 was registrar of University College, aiding the creation of a public scientific culture through his teaching, reviewing and writing, including his *Popular Cyclopaedia of Natural Sciences*.

taken both a BA and MA in science at University College and served as ex-officio Commissioner of Patents on the Royal Commission whose report formed the nucleus of the Medical Act of 1886.⁹⁰

As a body, the governors had unusually strong intellectual credentials and the impact of the Endowed Schools Act was to introduce members who would, undoubtedly, have forced the conversation to the study of science and its place in contemporary society. It was, however, Roundell Palmer, Lord Selborne, appointed Master of the Mercers in 1875, who had the seniority, authority and public profile to ensure the conversation become more than idle chat.

As Peter Nailor, formerly Provost of Gresham College⁹¹ and Professor of History at the Royal Naval College, Greenwich, writes of Lord Selborne 'family connection only partly explains his long and active involvement (with the Mercers), in the same way that his great professional reputation only partly explains the extent of his influence within the Company. It was his personal qualities and his deep commitment which added to the weight of his opinions.'⁹² Whatever its source, Palmer's influence was to have significant long-term repercussions on the education provided at St Paul's and the environment in which it was delivered.

The influence of Roundell Palmer, 1st Earl of Selborne, Master of the Mercers,

⁹⁰ Jones, G.H. (2004), '*Sir George Jessel (1824-1883)*', *Oxford Dictionary of National Biography*, Oxford: Oxford University Press). Sir George Jessel, son of a wealthy London merchant, was educated at University College, where he took his BA (in mathematics, natural philosophy, vegetable physiology and structural botany) and MA, winning a gold medal in Mathematics and natural philosophy. In 1846, he was elected a fellow of University College London. Called to the bar in 1847, he became Liberal MP for Dover in 1868. Gladstone offered him the post of Solicitor General in 1871 and, in 1873, he became Master of the Rolls, an *ex-officio* member of the new Court of Appeal. In 1881, he was appointed Vice Chancellor of the University of London.

⁹¹ Doolittle (1994), pp.37-9. Also a Mercers' trust.

⁹² Nailor, P. in Doolittle (1994), p.154, n.G.

1876, and member of the building committee from 1877

In 1875, as Lord Selborne (**FIGURE 13**) recalled in his autobiography:

the Mercers chose me to be Master the following year. They did me the honour to confer their chief office upon me 'per saltum'.⁹³ During the term of my Mastership, and afterwards till I again became Chancellor,⁹⁴ I attended closely to the Company's affairs and gained a knowledge of them which enabled me to be useful on various occasions, and, when necessary, to vindicate the company's rights.⁹⁵

The Mercers were both fortunate in their timing and astute in their judgement in catapulting Roundell Palmer to their highest office at a moment when their requirement for an incisive legal mind could not have been greater. Until just one year before, Selborne, one of the country's most respected lawyers, had been pre-occupied with affairs of state, when, as Gladstone's Lord Chancellor, he had with his 'own hand' ⁹⁶ carried through the reform of the administration of justice embodied in the 1873 Judicature Act.⁹⁷ In comparison, the threat posed to the Mercers by the proposed scheme for St Paul's would certainly have appeared a little local difficulty. Selborne was to help finalise the scheme, playing a decisive role in retaining much of the Mercers' authority on the governing body and in the creation of the school as it was reborn in its new location.

⁹³ i.e. without passing through the subordinate offices.

⁹⁴ Steele, D. (2004), '*Palmer, Roundell, first earl of Selborne (1812-1895), Lord Chancellor*', *Oxford Dictionary of National Biography*, Oxford: Oxford University Press. Selborne had been Chancellor during the first Gladstone administration between 1872-4, and became so again on Gladstone's re-election in 1880.

⁹⁵ Palmer (1898), Part II, Vol.1, pp.367-8.

⁹⁶ Steele (2004).

⁹⁷ *ibid*; Selborne (1898), Part II, Vol.1, p.298. This created a unified supreme court. Selborne considered this his 'monument'.

Roundell Palmer, 1st Earl of Selborne, was a major figure in national politics and public life from his appointment as Solicitor General in Palmerston's second government in 1861⁹⁸ until his death in 1895. Born into a landed family with strong connections with the Mercers',⁹⁹ he attended pre-Arnold Rugby,¹⁰⁰ then Winchester,¹⁰¹ before proceeding to Oxford, where he enjoyed an outstanding academic career¹⁰² and become president of the Oxford Union.¹⁰³ Here, he also developed enduring friendships with both William Gladstone and with Archibald Tait¹⁰⁴ (later, Frederick William Walker's headmaster at Rugby and Archbishop of Canterbury). Called to the bar at Lincoln's Inn in 1837, he enjoyed a rapid rise, before entering parliament in 1847.¹⁰⁵

Originally a Peelite,¹⁰⁶ Selborne '*was above all a Gladstonian*',¹⁰⁷ with clear Liberal sympathies demonstrated in his early support of the admission of Jews to Parliament, advocacy of household suffrage¹⁰⁸ and support for the Elementary Education Act.¹⁰⁹ In politics, as in law, however, he was a believer in evolutionary change, and his role at St Paul's appears to have been to broker a scheme that

⁹⁸ Steele (2004). He served in the first two Gladstone administrations, but broke with Gladstone in 1885 over Irish Home Rule, when he joined the Liberal Unionists.

⁹⁹ Heward, E. (1998), pp.2-3, *A Victorian Law Reformer, A Life of Lord Selborne*, Chichester: Barry Rose. His great grandfather, Thomas, was a London merchant, who joined the Mercers' Company in 1729; his grandfather William, also a London merchant, had been active in the Mercers' Company and St Paul's School.

¹⁰⁰ *ibid.*, pp.10-11.

¹⁰¹ *ibid.*

¹⁰² *ibid.* He won an open scholarship at Trinity, going on to take a First-class degree and win the Chancellor's Prize for Latin verse, the Ireland scholarship (for Greek), the Newdigate Prize (for English verse) and the Eldon law scholarship, before election to a fellowship at Magdalen.

¹⁰³ *ibid.*

¹⁰⁴ *The Times*, May 6th, 1895, *Obituary*; Palmer (1898), Part II, Vol. 2, p.80.

¹⁰⁵ Steele (2004).

¹⁰⁶ *ibid.*

¹⁰⁷ *ibid.*

¹⁰⁸ *ibid.*

¹⁰⁹ Palmer (1898), Part II, Vol.1, p.158.

satisfied both the Charity Commissioners' demands for a significant redistribution of the endowment and the Mercers' determination to retain both the status of St Paul's as a leading public school and their primary control of the Coletine trust.

Selborne's personal¹¹⁰ as well as his intellectual qualities made him a widely-respected figure and the successful conclusion of three years of debate, which resulted in the 1876 scheme, must, in great part, be attributed both to his '*persuasive reasonableness*'¹¹¹ and his conscientious attention to detail.¹¹² His influence in the decisions taken at St Paul's about the form and function of the new school building, however, extended well beyond the regulatory. He is credited by Frederick William Walker¹¹³ with the decision taken in 1878 to amend the 1876 scheme and, instead of creating two separate boys' schools (one Classical, one Modern), to build a single school amalgamating two separate departments. Appointed a member of the 'Building Committee' formed on 26th January, 1877,¹¹⁴ he is also considered by Alfred Waterhouse's biographers to have been instrumental in the appointment of Waterhouse to design the new St Paul's building.¹¹⁵

¹¹⁰ Steele (2004). Particularly his independence of mind, industry and moral rectitude.

¹¹¹ *The Times*, May 6th, 1895.

¹¹² Palmer (1898), Part II, Vol.2, pp.448-9. Frederick William Walker comments in an addendum to Selborne's posthumously published *Memorials* that: 'Before entering on my duties as High Master, I attended a meeting of the governors, convened for the purpose of framing certain regulations required by the new scheme... Lord Selborne took the initiative in the proceedings and I was much impressed by the great interest he took in the school and the minute care he devoted to the drafting of rule after rule...'

¹¹³ Palmer (1898), Part II, Vol.2, pp.448-9. Walker states: 'When a meeting of the governors was held to consider the question of the rebuilding of the school on another site, the preliminary questions was raised whether St Paul's should be divided (for the purpose of separate schools, classical and modern) into two buildings. Lord Selborne advocated a single great school, and his counsel happily prevailed.'

¹¹⁴ MM, 16th February, 1877. This committee was initially formed to 'consider how much land will be required for a school of 500'.

¹¹⁵ Cunningham and Waterhouse (1992), p.23.

The first claim is perhaps the more problematic, and poses the question why Selborne should have wished to promote this end? Though, he was widely involved with educational reform elsewhere,¹¹⁶ there is little evidence that his own personal¹¹⁷ or political interests lay in the advancement of scientific education for the middle class. Indeed, at Winchester College, a Clarendon school, where he was chair of governors at the same time he was chair of governors at St Paul's,¹¹⁸ the revised curriculum devised by the headmaster of the period, George Ridding, paid only limited attention to science.¹¹⁹ Nor does his motivation seem to have stemmed directly from party policy. Though Gladstone, in the programme of political and social reform introduced after the Liberal victory of 1868, endorsed the Royal Commission on Scientific Instruction and the Advancement of Science set up in 1870,¹²⁰ his administration implemented few of its recommendations,¹²¹ and, in the 1870s, Gladstone himself frequently opposed both state support for science and the creation of a Ministry for Science.¹²²

¹¹⁶ *The Times*, May 6th, 1895. He attempted to update legal education, and, as well as his long-term involvement with Oxford University reform, in the 1880s chaired the Selborne Commission which considered the future of Higher Education in London.

¹¹⁷ Rigg, J.M. 'Palmer, Roundell, 1st Earl of Selborne', *Dictionary of National Biography, 1885-1900*, Vol.43. Oxford: Oxford University Press. He had a life-long interest in natural history, particularly botany, but his interest did not extend to other areas of science.

¹¹⁸ Dilke (1965), pp.72-75.; Palmer (1898), Part II, Vol.2, p.447. As a member of the governing body and its chair, he was, according to his daughter Sophia, a '*directing mind*' in remodelling its constitution.

¹¹⁹ Dilke (1965), pp.72-75, p.76. Under George Ridding (who married Selborne's daughter Laura), the school introduced the study of English literature and Modern History and allowed more time for Mathematics and natural science but did not add a Modern side.

¹²⁰ Alter, P. tr. from the German by Davies, A. (1987), p.90, *The Reluctant Patron, Science and the State 1850-1920*, Oxford, Hamburg, New York: Berg. Known as the Devonshire Commission, after its chair the Duke of Devonshire.

¹²¹ *ibid*, p.81.

¹²² *ibid*, p.121. Even so, from the middle of the century, the state was increasingly willing to lend aid to specific areas of science, including higher education and museums.

Nonetheless, at Oxford, where Selborne was involved in reform for much of his career,¹²³ he would certainly have been aware of the shifting status of science,¹²⁴ a shift he acknowledged both in a speech delivered soon after his appointment as Lord Rector of St Andrew's University in 1878 ('The title of Natural Science to a prominent and honoured place in any worthy course of academical study is now universally recognised'),¹²⁵ and in the one he delivered at the launch of the new St Paul's School building in 1884 ('We have added also to our curriculum so as to include not only mathematical but also physical science, which enters so largely into modern civilization').¹²⁶

Moreover, Gladstone's advocacy of technical education, considered essential to make England competitive in an international marketplace,¹²⁷ was one Selborne unequivocally championed, playing a pivotal role in the Mercers' involvement in the formation of the Central City and Guilds Institute for the Advancement of Technical Education.¹²⁸ At the time, *The Times* accused Selborne of cynical pre-emptive action in this venture,¹²⁹ but his subsequent unwavering backing of the Institute would indicate this was certainly not his primary motivation.¹³⁰ Though technical education

¹²³ Nailor (1994), p.154.

¹²⁴ Alter (1987), p.102. Mark Pattison, rector of Lincoln College, wrote in 1868: 'In order... to make Oxford a seat of education it must first be made a seat of science and learning. All attempts to stimulate its teaching activity without adding to its solid possession in the field of science will only feed the unwholesome system of education which is now undermining the educational value of the work we actually do.' (Pattison, M., 1868, p.171, *Suggested Academical Organisation with Especial Reference to Oxford*, Edinburgh)

¹²⁵ Palmer (1898), Part II, Vol.1, p.421.

¹²⁶ Anon. (1911), p.87. *The Opening Ceremony*, in Gardiner, R.B., Lupton, J. (eds.) (1911).

¹²⁷ Doolittle (1994), p.156.

¹²⁸ *ibid.*

¹²⁹ *The Times*, 7TH December, 1885. 'The Livery Companies apprehend interference with the management of their funds and Lord Selborne, who shares their antipathy to it, points to the Institute as a lightning conductor.'

¹³⁰ Doolittle (1994), p.156. He became an assiduous chairman of the Institute's council and was responsible for keeping the Mercers' committed to the project when the withdrawal of the Drapers' Company threatened its existence in 1888. Palmer (1898), Part II, Vol.2, pp.449-450. After Selborne's death, Sir Philip Magnus, director of the Institute, commented 'but for him the Technical Education movement ... might never have existed.'

was largely intended for a different strand of the middle class to the one that attended St Paul's, it must have been clear to Selborne that many of the parents the school wished to attract were looking for a 'modern' education that would equip their sons for careers in the army, medicine and the civil service, which by then demanded a strong scientific and mathematical grounding.

Perhaps the most likely explanation for his advocacy of integrating the Modern and Classical sides, however, was that it was only by this means that the Mercers could retain the greater part of the endowment's substantial funds for St Paul's itself, so ensuring its continuing status as a 'Great School'.

Selborne's influence on the appointment of Alfred Waterhouse to construct an appropriately prestigious environment for the school seems highly probable. He had met Waterhouse when on the jury for the competition for the new Law Courts,¹³¹ when he had taken an immediate liking to him.¹³² Soon after, he employed him for nearly a decade at Blackmoor, his estate in Hampshire, where Waterhouse not only designed the main house, but a church, a vicarage, a reading room, two schools and cottages.¹³³ The fact that Waterhouse was employed simultaneously at the City and Guilds Institute,¹³⁴ where Selborne enjoyed similar influence, suggests his advocacy must have been persuasive, though, as the Mercers' Minutes detail, the architect at

¹³¹ Cunningham and Waterhouse (1992), p.41. The competition was held in 1866.

¹³² Palmer (1898), Part II, Vol.1, p.11. *'I had been brought into communication with him over the plans for the new courts of Law, and both liked him personally and thought highly of his professional work.'*

¹³³ Cunningham and Waterhouse (1992), p.23, p.224. Selborne bought the estate in 1865.

¹³⁴ *ibid.*, pp.255-6, p.125. Here, Waterhouse produced his designs in the first months of 1881 and the building opened six months after St Paul's.

St Paul's was ultimately selected by ballot so Selborne could not have dictated the outcome.¹³⁵

THE DECISIONS TAKEN ABOUT THE LOCATION OF THE SCHOOL BY THE SCHOOL GOVERNORS AND THE CHARITY COMMISSIONERS, 1877

As far as the school buildings were concerned, the key points of the 1876 scheme drawn up by the Charity Commissioners were: the removal of the school to a site within the jurisdiction of the Metropolitan Board of Works¹³⁶ (the acquisition of the site being subject to the approval of the Charity Commissioners);¹³⁷ the requirement that the Charity Commissioners approve the plans of the proposed building;¹³⁸ the confirmation of the Mercers' Company as managers of the property.¹³⁹

On ratification of the scheme, the governors immediately set out to implement it, and their first step was to exercise their responsibility to relocate the school.

By the late 1870s, the decision to move from the City was not contentious, but the choice of site threw into question the intended intake of the new, much larger school. The City-based school, with its relatively small numbers admitted solely on the basis of Mercer patronage,¹⁴⁰ was, as the registers show, already drawn from a wide expanse of the rapidly expanding metropolis.¹⁴¹ In terms of parental occupation, the

¹³⁵ MM, 10th May, 1878. '...each governor voting for one person and that the ballot be repeated the person having the lowest number of votes at the first ballot being excluded from the second'.

¹³⁶ *ibid.*, pp.151-2.

¹³⁷ *Ibid.*, p.151.

¹³⁸ *ibid.*

¹³⁹ *ibid.*, pp.150.

¹⁴⁰ CC, Vol.1, Ch.5., p.195. 'The nomination of a scholar, whatever it may have originally been, has now become an affair of simple patronage.'

¹⁴¹ Gardiner, R.B. (1906), pp.75-6, *The Admissions Registers of St Paul's School from 1876 to 1905*, London: George Bell and Sons. For example, in January 1877, when Walker started as head, 13 boys were admitted,

bulk of its pupils derived, as they had since the foundation,¹⁴² from what today would be termed the professional middle class.¹⁴³

In the Victorian period, this demarcation was particularly sharply defined and is clearly summarised by G.K. Chesterton,¹⁴⁴ who entered the school in 1887:¹⁴⁵

One peculiarity of this middle class was that it really was a class and it really was in the middle. Both for good and evil, and certainly often to excess, it was separated both from the class above and the class below... It attached rather too much importance to spelling correctly; it attached enormous importance to speaking correctly. There was a whole world in which nobody was any more likely to drop an 'h' than pick up a title.¹⁴⁶

This middle class¹⁴⁷ (some richer, some poorer¹⁴⁸) were rapidly peopling what was to become Greater London,¹⁴⁹ creating a widespread market for the school,¹⁵⁰ and when the Mercers set out to find a new site, they were reasonably comprehensive in

who travelled from: Clapham, Peckham Rye, Chiswick, Essex, Blackheath, Stoke Newington, Brixton, Kensington and Highgate.

¹⁴² Orme (2006), p.239.

¹⁴³ Gardiner (1906), pp.75-6. In January 1877, parental professions included: farmer (2), commercial traveller, clergyman (2), colonial broker, civil engineer (2), civil servant, ship-insurance broker, publisher.

¹⁴⁴ Chesterton (1936/1959), pp.10-11. Chesterton's own family owned a long-established firm of estate agents.

¹⁴⁵ Gardiner (1906), p.165.

¹⁴⁶ Chesterton (1936/1959), p.13.

¹⁴⁷ Coutts-Trotter (1911), p.138. As Victor Coutts-Trotter comments: 'the parents of Paulines were not as a rule rich or even well off...'

¹⁴⁸ Shepard (1961/2002), p.46. The illustrator of *Winnie the Pooh*, Ernest Shepard, for example, a contemporary of Chesterton, was asked by his artist father not to have school lunch because of the cost. Seaton (1911), p.154. The tuition fee at this point was £24.9s a year. Burnett, J. (1969), p.233, p.44. *A History of the Cost of Living*, Harmondsworth: Penguin Books. In comparison, the cost of a boarding education by the end of the century was £100-£150 a year.

¹⁴⁹ Summerson (1973), pp.7-8. Over 73,000 new buildings were erected in the metropolitan area in the 1860s, mostly suburban houses. According to Summerson, the 'masters' relocated to Bayswater, Kensington, Hornsey and Clapham; the 'clerks' to Camberwell, Peckham, Stoke Newington or Highbury.

¹⁵⁰ *ibid.* In 1861, the City still had 113,000 inhabitants; by 1871 only 76,000.

their quest,¹⁵¹ primarily concerned about the relative value of land,¹⁵² the extent of land available,¹⁵³ and, most critically, the reach of public transport ('such site to be near a railway station well served by trains').¹⁵⁴ The last in particular is a clear indication that, at no point, was the school considered a 'local' school. It was, as its foundation had intended, to be a school for 'children of all nations and countres indifferently'.¹⁵⁵ It is also clear that, at this point, no decision had yet been taken about whether to amalgamate the two sides of the curriculum.¹⁵⁶

The Mercers' surveyor provided them with an extensive shortlist of possibilities (including sites in Hampstead, Notting Hill, Shepherd's Bush, West Kensington, Kilburn and Balham Hill),¹⁵⁷ which the School Building Committee appointed by the governors¹⁵⁸ narrowed to seven (three in Kensington, two in Notting Hill, one in 'Belsize District, Hampstead'). Cost was a factor, but the size of the plot more so.¹⁵⁹ The Building Committee inspected the sites, rejecting all but two,¹⁶⁰ before settling

¹⁵¹ MM, 16th March, 1877. They instructed the school's surveyor George Barnes Williams to look in: 'Earl's Court or its neighbourhood, Addison Road Station or Holland Park, Clapham Junction, Finchley, Kilburn or neighbourhood, Highbury, Shepherd's Bush', and he was also free to 'furnish the committee with any suggestion as to site although the site may not be one of the places indicated.'

¹⁵² *ibid.*

¹⁵³ *ibid.* The Minutes note that on 26th January, 1877, a committee was appointed to consider the question and suggested that, for a school of 500 boys, a minimum of six acres was essential; for 1000 boys, '*not less than ten acres*'. Ideally, they hoped for a larger site.

¹⁵⁴ *ibid.* For the Charity Commissioners, the availability of transport was a non-negotiable feature of the remit.

¹⁵⁵ Colet (1518), p.277.

¹⁵⁶ MM, 26th January, 1877. 'That in as much as the quantity of land required for the site for a new school depends to a great extent on the decision of the governors whether the classical and modern schools shall be under one high master or under separate masters. it is desirable that the governors take that question into their consideration at an early date.'

¹⁵⁷ MM, 20th April, 1877.

¹⁵⁸ *ibid.*, 15th June, 1877.

¹⁵⁹ *ibid.*, 20th April, 1877. The West Kensington site, though towards the higher end financially, offered, at 16 acres, the most land.

¹⁶⁰ *ibid.*, 15th June, 1877.

on the eventual location in West Kensington on the basis that it offered a good balance between transport links, size, and price.¹⁶¹

The proposed site was in what was then a semi-rural location, but one which was rapidly undergoing both urbanisation¹⁶² and gentrification.¹⁶³ The population remained mixed, partly agricultural, partly industrial, and partly artistic and progressive.¹⁶⁴ The land had been occupied by a nursery garden¹⁶⁵ (**FIGURE 14**) and was still surrounded by open fields, and the new school was to play an important role in defining the area.¹⁶⁶ By the turn of the century, 'no longer beyond the pale',¹⁶⁷ the borough had filled with 'Workers of all kinds, professional men and women, artists and master craftsmen... the builders of commerce, skilled artisans.'¹⁶⁸

¹⁶¹ *ibid.* This had varied considerably, from £1000 an acre in Balham to £5000 an acre in Hampstead. The West Kensington site was on the market at £3600 an acre.

¹⁶² Pevsner (1952/1974), p.174. In 1861, Hammersmith had 25,000 residents; by 1881, 72,999.

¹⁶³ Draper, W.H. (1913), p.58, *Hammersmith, A Study in Town History*, Hammersmith: James Chamberlen.

¹⁶⁴ *ibid.*, p.58-9. The area was home to an established colony of local 'creatives', which included the actor Henry Irving and the designer and writer William Morris. William and Catherine Booth began the work of the Salvation Army while living here.

¹⁶⁵ Richards (1968), p.9. J.H. Lupton, then Surmaster, recalled the dismay with which he looked over the expanse of disused nursery gardens and thought that, in moving from the City, St Paul's had parted with everything of historic interest.

¹⁶⁶ Draper (1913), p.57. The school predates the town hall (1897) and theatre (1902). Watson (1995), p.15, pp.35-41. Hammersmith, however, already had a long-established endowed grammar school founded in 1627. The scheme agreed for it in 1878 created a school very different to St Paul's, ensuring its local character, by appointing three governors from Hammersmith Borough Council, two nominated by the London School Board. It ultimately led to the establishment of Latymer Upper School, formally opened in 1895, a day school for boys staying till 16, with a curriculum which included experimental chemistry and practical mechanics. Here tuition fees were capped at £5 and scholarships were awarded to applicants from local elementary schools. It seems understandable why, in the 1890s, the local interest hoped to involve St Paul's in an extension of this system. (See below, Ch.8, p.284, n.174).

¹⁶⁷ Draper (1913), p.64.

¹⁶⁸ *ibid.*, p.66: Coutts-Trotter (1911), p.140. By that point, the advantages of the suburban location were clear. 'The position of St Paul's in a London suburb unquestionably gave it an advantage in attraction over other London day schools. Many parents... disliked their boys at a tender age making a daily journey into the heart of the city and preferred that they should go to a school provided with a large playground and situation in a part of London where they could themselves live...'

The London property market was undergoing a period of rapid growth and land in the area was in considerable demand.¹⁶⁹ With this in mind, the Committee instructed their surveyor to offer £50,000 'or as much less as possible' ¹⁷⁰ and, through him, agreed a price of £46,000.¹⁷¹ This figure was then submitted to the Charity Commissioners, whose own surveyor rejected it as far too high, suggesting an alternative value of just £32,000.¹⁷² After further negotiation, a new price of £41,000 was agreed.¹⁷³

This incident is significant. The governors of St Paul's, many successful City businessmen, can hardly have been considered profligate or foolish in their business negotiations, yet the Charity Commissioners, as guardians of endowed charitable foundations, saw it as their responsibility to cut expenditure as tightly as possible. It must be presumed that this was to ensure that sufficient funds remained to carry out the other stipulations of the scheme.

CONCLUSION

This chapter established that, while the investigation of the school carried out by the Clarendon Commissioners in the early 1860s is likely to have formed the basis of the scheme ultimately developed for the school in the 1870s, the Charity Commissioners

¹⁶⁹ MM, 15th June, 1877. The surveyor urged the governors to act quickly as 'several other parties have applied to treat of the property.'

¹⁷⁰ *ibid.* They warned the Surveyor that: 'any offers to be made by him be made subject to the approval of the charity commissioners.'

¹⁷¹ MM, 16th November, 1877.

¹⁷² *ibid.*, 25th June, 1877; 18th July, 1877; 16th November, 1877. The Mercers defended their decision on the basis that 'the question of price (within, of course, certain limits) is not of the first importance' provided the plot was sufficiently large to 'include a gymnasium and playgrounds', near a railway station and in a 'locality from which boys might reasonably be expected to attend the school.'

¹⁷³ MM, 19th December, 1877.

responsible for the latter scheme had a significantly more radical agenda, particularly concerning redistribution of the Coletine trust.

Though both insisted on the introduction of fees and competitive entrance exams, a broader curriculum, and the relocation of the school, the primary objectives of the Charity Commission was a significant re-allocation of the funds of the Coletine trust to provide both a modern education (as opposed to the 'classical' education given at St Paul's), either on site or elsewhere, and education for girls. These financial concerns seem to have remained uppermost in their negotiations with the school, and, while they were willing to allow the school considerable leeway in retaining a large sum for the rebuild, they set strict parameters on the spend both for the site and for the new building.

Moreover, the Charity Commissioners did not share the Clarendon Commissioners' view that it would be problematic for a major 'public school' to provide a 'modern' and 'classical' education in the same institution. The re-composition of the governing body under the new scheme, which introduced members with significant scientific qualifications, would have furthered this perspective, and it was the school governors, in particular Lord Selborne, who were ultimately responsible for the decision to unite a modern and classical curriculum in a single building under a single head.

The governors also decided where the new school should be located (though with strictures about cost and transport censored by the Charity Commissioners) and the extent of the land required. The new site was chosen in order to give the school

extensive access to the rapidly growing urban professional middle class and to provide sufficient scope to build a large school building with playing fields.

The High Master, Frederick William Walker, who took over as head in January 1877,¹⁷⁴ appears not to have been consulted about the scheme or the extent of the site, but, as soon as the purchase of the site had been finalised, was called on to give his views about the internal arrangements of the building. The architect was appointed after the High Master's suggestions were agreed by the governors. The next two chapters will, therefore, address the perspective from which the High Master and the architect, Alfred Waterhouse, acted.

What does this account of the roles played by the Royal Commission and the School Governors contribute to the study of history?

The rebuilding of St Paul's School between 1878 and 1884 was selected as an appropriate microhistorical case study because, as one of only two schools transferred from the remit of the Public Schools Act (1868) to the remit of the Endowed Schools Act (1869), it offered a strong example of the 'exceptional normal'. These two Acts, both concerned with secondary education, had very different purposes and outcomes. Through a micro-historical analysis, this chapter was able to explore how the school both responded to and resisted external intervention from the Charity Commissioners under the terms of the Endowed Schools Act and examine how this shaped the outcome of the rebuild.

A microhistorical approach usefully allowed me to gain a clearer insight into the balance of power between the school governors and those enacting government policy, particularly as this related to the location of the new school, the budget for the

¹⁷⁴ MM., 27th October, 1876; 21st December, 1876.

rebuild, and the content of the curriculum. This fulfilled one of the main purposes of the thesis: to establish who the key decision-makers were in the rebuilding of the school and the various roles played by the parties involved.

CHAPTER 6: THE HIGH MASTER FREDERICK WILLIAM WALKER AND HIS BRIEF FOR THE NEW BUILDING, 1878

INTRODUCTION

Frederick William Walker, appointed as High Master of St Paul's in 1876, was the person primarily responsible for drawing up the brief to which the new school was built. In this chapter, I explore his critical role in the design and, in doing so, consider his educational biography, exploring how far his professional and personal experience affected his priorities, as well as the extent to which his views on the form of the building chimed with a broader outlook on education, its key purposes and role.

I begin by examining how far and in what way Walker's education at school and university, as well as his early professional life, placed him within a Liberal, progressive movement of education focused on modernising English secondary education. I then go on to analyse Walker's work at Manchester Grammar School, the school he headed for 17 years immediately prior to his arrival at St Paul's, exploring how far his experience here is likely to have altered a perspective about the curriculum formed in the south, particularly as this related to the prominence of science and technology. By investigating how Walker's priorities were expressed in the two new buildings he helped develop for Manchester Grammar School, I establish how these are likely to have informed his suggestions for the new building at St Paul's. Finally, I detail the brief Walker drew up for the school.

THE CONTRIBUTION OF BIOGRAPHY TO THE STUDY OF DECISION MAKING AT ST PAUL'S

Cyril Bailey, the eminent classical scholar,¹ who joined St Paul's in 1884 as part of the first intake in the West Kensington building,² later remarked: 'The new St Paul's was the creation of Walker. He had the vision to see what it might become and the energy and persistence to put it through.'³ Few contemporaries would have disagreed with this summary. In the context of this thesis, however, it is Walker's involvement with the construction of the new building that is pertinent, and here it is clear that, just over a year after his appointment as High Master,⁴ he was required to outline the requirements for the new building.⁵

To understand the perspective from which Walker drew up his brief, this chapter provides a biographical history of the head as it relates to his experience of education, as well as a biographical sketch of his personality. This approach has been taken for two reasons. Firstly because, as Ludmilla Jordanova notes: 'taking a person as unit of analysis is (an) historical approach, (which) emphasises individual agency and sees the subject as a point at which diverse historical forces converge.'⁶ Secondly because, as Tosh argues: 'Plainly the motives of individuals have some part to play in explaining historical events. Once this much is conceded, the relevance of biography is obvious. The actions of an individual can be fully

¹ Griffin, J. (2004), '*Bailey, Cyril (1871-1957)*', *Oxford Dictionary of National Biography*, Oxford: Oxford University Press.

² Gardiner (1906), p.121. Bailey, the eldest of four brothers who attended the school under Walker, was a foundation scholar.

³ Bailey (undated), p.28.

⁴ MM, 27th October, 1876.

⁵ MM, 18th January, 1878.

⁶ Jordanova (2000), p.41.

understood only in the light of his or her emotional make-up, temperament and prejudices.⁷

By the time Walker took over as High Master of St Paul's in January, 1877, the headmaster of an English secondary school had come to be seen as the school's chief executive, ultimately responsible to a board of governors, but acting largely independently as far as the school's day-to-day management was concerned. This chapter, therefore, begins with a brief summary of the way in which the role of the headmaster changed in the mid 19th century, when it shifted from a primarily teaching and disciplinary function in an environment where education was provided free, to a managerial one, where the head of a fee-charging secondary school was required to oversee a complex, multi-stranded organisation and implement a strategy to underline its identity, attract its target audience and develop its academic ambitions in a way that would enhance its credibility.

With these factors in mind, I go on to examine how Walker's education as a pupil at Rugby School, considered by contemporaries to have been the most influential secondary school of the 19th century, and the period he spent as both a student and academic at Oxford University, again viewed as a critical environment for new ideas about middle-class education, shaped the background to the decisions he later took.

Immediately prior to his appointment at St Paul's, Walker spent 17 years as head of Manchester Grammar School, a 16th-century foundation, which he transformed from a beleaguered endowed grammar school into one of the country's foremost

⁷ Tosh (2015), p.57.

academic schools.⁸ Here, he instigated two significant programmes of rebuilding,⁹ which allowed him to blend a successful classical education with an equally successful scientific education. This chapter concludes that it was this experience in Britain's foremost industrial city, which transformed his outlook from one conditioned under very different circumstances in the south of England to a new view of the purpose of secondary education and the facilities required to deliver this. It was this viewpoint, which specifically informed the brief he outlined for St Paul's.

Finally, before drawing on archival records to examine the brief in detail, I provide a character sketch. Here, I have relied on memories of former pupils and staff at both MGS and St Paul's. These have provided me with further insight into how Walker's priorities for secondary education may have been shaped by his personality and personal experience.

THE CHANGING ROLE OF THE HEADMASTER IN THE 19TH CENTURY

During the course of the 19th century the role of the secondary-school headmaster was transformed from a narrow pedagogic function into a more complex managerial one, where, just as today, the head operated by 'directing the affairs of the school from his study and occasionally taking a lesson'.¹⁰

⁸ SIC, quoted in Mumford (1919), p.340: 'In May 1867, there were 39 (Manchester) undergraduates at Oxford and Cambridge, and, of this, the extraordinary proportion of 20 were holding open scholarships or exhibitions. As much as this cannot be said of any other school in England, and it is all the more remarkable because this School is purely a Day School.'

⁹ See below.

¹⁰ Lamb, G.F. (1959), p.122, *The Happiest Days*, London: Michael Joseph.

From the 15th to the latter part of the 19th century, the head teacher¹¹ of an endowed grammar school would have played a very different role. Invariably a classical scholar, he would equally invariably have been a graduate of Oxford or Cambridge¹² with a status that derived entirely from his scholastic capacity in Latin and Greek.¹³ For much of this time, the only subjects taught at these schools were the classics (Latin and Greek), and, in smaller schools, the head would have taught all pupils; in larger schools, such as St Paul's, he would have been assisted by several undermasters and would have taught only the most advanced (generally known as the 'sixth form').¹⁴ This arrangement was still widespread in the first half of the 19th century, when changing social, economic and pedagogic expectations affecting both school organisation and curriculum were the catalyst for its gradual evolution.

Lamb argues that it was Thomas Arnold at Rugby in the 1830s, who became the first headmaster in the modern sense, operating as the '*leader of a team of masters*'.¹⁵ By the 1860s, this transformation had become widespread and, both at MGS and St Paul's, Walker himself became the agent for this development.

Bamford contests that, in a 19th-century public school, the headmaster's power to arrange the school as he wished was absolute, and that, as 'an autocrats of

¹¹ The head was frequently referred to merely as 'the Master' or 'the Schoolmaster'. Both at St Paul's and MGS, the head was known as the 'High Master'.

¹² Bamford (1967), p.120. This applied equally to other teachers.

¹³ Lamb (1959), p.124.

¹⁴ Arnold, T. (1845), pp.341-2. *Miscellaneous Works*, London: B. Fellowes. Coutts-Trotter (1911), p.143. At St Paul's, the highest form had always been known as the 'eighth'. An Assistant Master, known at St Paul's as the Surmaster, and a number 'undermasters', would have worked with other pupils. Bamford (1967), p.116. By the mid-century, larger schools would also have 'extra' masters, who taught anything outside the classics and Mathematics, but were not full-time staff.

¹⁵ Lamb (1959), pp.137-8.

autocrats',¹⁶ his unchallenged authority was recognised by the school governors, stating that:

governors were generally of no account, in spite of the fact that, in theory, they controlled the destiny of the school and had sanctioning powers and control over finance and endowments. In practice, whatever ideas they had counted for little unless the headmaster agreed; the business of running the school was entirely his. ... In effect, the governor's main duty was, and always had been, to provide the environment in which the headmaster could work.¹⁷

My research would suggest a far less clear-cut hierarchy. Both at MGS and St Paul's,¹⁸ there appears to have been a nuanced inter-dependence between Walker and the various forceful characters who composed the governing bodies. This required a complex dance of politesse on both sides.¹⁹

That said, from the time of his appointment at St Paul's, Walker appears to have enjoyed the governors' complete confidence, and, just a year after his appointment, he was invited to dictate the specifications for the new building, requested 'to provide and report to the Committee the probable requirements for a school of 1000 boys, that is to say the number and size of classrooms, Central Hall, the theatre, Cloister, Gymnasium, Dining Hall, and any other school buildings'.²⁰ A month later, he

¹⁶ Norwood and Hope (1909), p.213.

¹⁷ Bamford (1967), p.135.

¹⁸ Colet (1518), p.189. Colet's statutes dictated that the governors had the right to examine and, if necessary, dismiss the headmaster on an annual basis. The Clarendon Commissioners (CC, 1864, Ch.5, p.189) suggested this 'somewhat antiquated rule' be omitted, but Walker's tone when addressing the governors remained deferential.

¹⁹ Palmer (1898), Part II, Vol.2, p.448. Walker himself states that 'the High Master not being present at the Governors' meeting unless specifically summoned.'

²⁰ MM, 18th January, 1878.

delivered his brief orally to the governors. This was agreed, with only minor amendments, in its entirety.²¹

WALKER'S NON-CONFORMIST BACKGROUND AND THE LEGACY OF HIS EDUCATION

Walker developed his brief for the St Paul's school buildings during a period when England had no organised system of secondary education,²² no national curriculum, only nugatory teacher training²³ and limited appreciation of pedagogy. In this context, Walker's own experience of education and school leadership must be considered formative. To explore these experiences, I consider, firstly, Walker's time as a schoolboy at Rugby in the years immediately after the headship of Thomas Arnold; then, his time as a student and tutor at Oxford University. In doing so, I have drawn on a range of primary and secondary sources and considered where these institutions were positioned in debates about a modern education and the kinds of building which reflected these ideas.

Walker at Rugby, 1845-1850: Thomas Arnold and the emergence of the 19th-century ideal of the public boarding school

²¹ MM, 4th April, 1878.

²² SIC (1868), Vol. 1, p.139. One of the chief aims of the SIC was to rectify 'the complete absence of all organisation of schools in relation to one another.'

²³ *ibid.* The SIC found widespread evidence of 'untrained teachers, and bad methods of teaching'.

Frederick William Walker, the only child of Thomas Walker of Tullamore, Ireland²⁴ and Elizabeth Ellangton of Warwickshire,²⁵ was born on 7th July, 1830, in the parish of St. Mary Magdalen, Bermondsey, Surrey,²⁶ and baptised in a Wesleyan service.²⁷ Until the age of 15, he attended St Saviour's Grammar School, a fee-paying endowed school modelled, on a more modest scale, on Colet's foundation,²⁸ but, by August 1845, was registered as a 'town'²⁹ boy at Rugby School in Warwickshire.³⁰

In the 1851 census, Walker's father's occupation is given as 'hatter',³¹ and, at that point, the Walkers were living (and, in the case of Thomas, working) with Walker's maternal grandmother Mary Nixon, at Nixon's, a hat shop on Rugby High Street.³² Though the move to Rugby, as has sometimes been suggested, may have been occasioned by a decline in the family's fortunes,³³ it seems equally plausible that Walker's parents decided to transfer there in order to allow their very able son to benefit from the free education available to those with local connections.³⁴

²⁴ 1851 Census, Folio 336, p.12, online at www.ancestry.com (downloaded 15th February, 2017); Cholmeley (1912).

²⁵ *ibid.*

²⁶ *England & Wales, Non-Conformist and Non-Parochial Registers, 1567-1970*, online at www.ancestry.com. (downloaded 15th February, 2017),

²⁷ *ibid.*

²⁸ *ibid.*, p.21. Carrington (1971), pp.137-9. SIC, Vol X (1868). The SIC classified it as a 'second-grade' school. It attracted the 'sons chiefly of professional men and superior tradesmen', providing a solid classical education.

²⁹ Bamford (1960), pp.128-42. The Rugby School foundation had been set up to provide a 'free' education to 'serve chiefly for the children of Rugby'. By 1800, its primary intake had become boarders from all over the country, and, according to Bamford, Arnold did his best to rid the school of town scholars. By 1837, it had become impossible for any local boy to succeed at Rugby unless he was already well versed in the classics, and, in 1838, only 43 boys living at home benefited from the foundation.

³⁰ *Rugby School Register, Vol.2, August 1842-January 1874*, on line at <https://archive.org/details/rugbyschoolregis01rugbuoft> (downloaded 12th March, 2018).

³¹ 1851 census, online at www.ancestry.com (downloaded 2nd February, 2016).

³² *ibid.* According to the census, the address was 7 Rugby High Street. The shop, under the name Nixon's, appears in *Tom Brown's Schooldays*. The site is currently occupied by a firm called Salters, www.salters-rugby.co.uk (downloaded 15th June, 2015), whose records confirm the owners in the mid-19th century were called Nixon.

³³ Cholmeley (1912).

³⁴ The family moved here, coincidentally or otherwise, the year after the publication of Stanley's best-selling biography of Arnold.

Whatever the reason, Walker's position as a day boy³⁵ from a family of shopkeepers would certainly have left him at a social disadvantage, and he seems to have made few lasting friendships amongst his peer group, many of whom went on to eminence in teaching,³⁶ academia³⁷ and public life.³⁸ His own, frequently commented-on, views on social class,³⁹ as well as his equally remarked on perspective of the benefits of a day over a boarding education⁴⁰ may arguably also stem from this early experience.

Though a 'Great School', Rugby was not a foundation with ancient, aristocratic associations.⁴¹ It has, nonetheless, been viewed by historians as the most influential public school of the 19th century, when Thomas Arnold, its head from 1827 to 1842,⁴² was widely perceived to have made a radical shift in the objectives and execution of English secondary education.⁴³ Though Walker arrived at the school three years after Arnold's sudden death at the age of 46,⁴⁴ his time at Rugby (under the

³⁵ Bamford (1960), p.187. Bamford mentions 'the scathing jibes reserved for those who slept outside'.

³⁶ Honey (1977), pp.27. Of the 1500-1600 boys educated at Rugby during Arnold's headship at least 18 became headmasters of leading public or endowed grammar schools, as did four of his staff. Rouse (1898), pp.281-2. Of Walker's contemporaries, Thomas William Jex-Blake became head of Cheltenham College (1868-1874), and Rugby (1874-87); Arthur Gray Butler was the first head of Haileybury (1862-7).

³⁷ Rouse (1898), p.280. C.L. Dobson (Lewis Carroll), became a lecturer in Mathematics at Christ Church College, Oxford; James Franck Bright, Master of University College, Oxford.

³⁸ *ibid.* pp.280-81. Viscount George Goschen, First Lord of the Admiralty; Sir Henry Wolff, Ambassador to Madrid; Sir Horace Davey, one of the Lords of Appeal; and The Hon Sir Ashley Eden, Lieutenant Governor of Bombay.

³⁹ See below.

⁴⁰ See Ch.8, p.323.

⁴¹ Hope Simpson (1967), pp.1-9. F.D.M. (February 1846), p.226, *The Rugby Miscellany*, London: Whittaker and Co. A writer in the Rugby school magazine commented: '*We may... speak of Rugby as the image of that most powerful element of modern English society, the Middle Class. We have none of the prestige of birth and rank about us...our celebrity is of recent date, and in consequence we have never numbered amongst us many of the rising aristocracy.*'

⁴² Bamford (1960), pp.18-19, p.171. Arnold died, in post, in June 1842.

⁴³ *The Times*, Thursday July 16th, 1896. The Dean of Westminster, at the unveiling of the memorial to Arnold in Westminster Abbey, said: '*We are paying honour to the memory of the great Christian reformer, as we may call him, of the whole life of our English public schools, whose influence both direct and indirect, is felt far and wide even now.*'

⁴⁴ Bamford (1960), p.170.

headship of Archibald Tait)⁴⁵ was lived in the shadow of Arnold's well-documented legacy,⁴⁶ and it is, therefore, relevant to consider some of the defining features of Arnold's approach and how far these might have affected Walker's later perspective.

While Arnold has been credited with (or blamed for) everything from the spread of imperialism to the 'worship of athletics and the worship of good form',⁴⁷ his objectives were, in fact, more specific, summarised in his own oft-quoted words: 'first, religious and moral principle; secondly, gentlemanly conduct; thirdly, intellectual ability.'⁴⁸ He changed the tone of a school, which like other contemporary public schools, had been disrupted by pupil rebellion, cruelty and vice,⁴⁹ making religion fundamental to the education provided⁵⁰ and re-organising the system of prefects (praepostors) among the oldest boys to work co-operatively with the head to reduce bullying and unruly behaviour.⁵¹

Unusually at the time, Arnold took on the role of school chaplain,⁵² inspiring staff and pupils with his moral idealism and using the sermon as a central plank of pedagogy.⁵³ He also updated the curriculum (incorporating modern languages,

⁴⁵ Randall T.D. and Benham, W. (1891), p.25, p.33, p.38, p.57, pp.110-121, p.149, p.535. *Life of Archibald Campbell Tait, Archbishop of Canterbury*, Vol.1. London: Macmillan & Co; Hope Simpson (1967), pp.10-22. Archibald Tait (head 1842-50) attended Glasgow University before winning an exhibition to Balliol College, Oxford, where he became senior tutor, numbering among his pupils Benjamin Jowett. After Rugby, he became Dean of Carlisle, and, in 1868, Archbishop of Canterbury.

⁴⁶ *ibid.* (1891), p.113, Hope Simpson (1967), pp.10-21. He was expected by Arnold's admirers to make few changes, an expectation he largely fulfilled.

⁴⁷ Strachey (1918), p.207.

⁴⁸ Stanley (1844), Vol. I, p.118.

⁴⁹ Rouse (1898), pp.214-219.

⁵⁰ Newsome (1961), p.2. For Arnold, a Christian evangelist and supporter of the Broad Church Movement, education and religion were two aspects of the same thing.

⁵¹ Rouse (1898), pp.224-26. He looked to the sixth form to set the moral tone of the school, endowed with considerable powers but also responsibilities.

⁵² *ibid.*, pp.230-31.

⁵³ Newsome (1961) pp.28-34.

mathematics and modern history as part of the formal scheme of work),⁵⁴ but one of his most significant contributions was the shift he made in the standards of teaching and the respect with which teachers were held.⁵⁵ He himself was an inspired teacher, taking charge of the sixth form with the intention to train future leaders of a reformed society⁵⁶ and, from here, sent out a group of intense, reforming acolytes, who remained close as they progressed in their successful careers.⁵⁷

In light of the fact that Walker's professional career was concentrated in day schools, the most formative aspects of his schoolboy experience were: Rugby's academic priorities; its approach to examinations and work; its approach to sport; and the physical environment it offered.

Arnold's curriculum was not particularly radical. Though his intention was to make the classical languages relevant to the contemporary world, he continued to lay absolute stress on a classical education as the best means of delivering the religious and moral programme he prioritised,⁵⁸ and, while he extended the curriculum, he did not encourage any form of science teaching at the school.⁵⁹ On Arnold's death,

⁵⁴ Rouse (1898) p.232.

⁵⁵ Bamford (1960), pp.175-8.

⁵⁶ *ibid.*, p.181.

⁵⁷ Ward (1965), p.130. Arnold was a hugely influential figure for a group of former Rugbeians who themselves became influential Oxford liberals, foremost amongst whom were A.P. Stanley, W.C. Lake, and Arthur Hugh Clough. They formed part of a broader circle, which included Archibald Tait, Frederick Temple (later a member of the SIC, headmaster of Rugby and Archbishop of Canterbury), and Benjamin Jowett.

⁵⁸ Bamford (1960), p.123.

⁵⁹ *ibid.*, pp.117-127. Indeed, Bamford demonstrates how, while Arnold welcomed science as 'the hope of the masses', at Rugby he discouraged the annual science lectures that were already in place, writing (May 9th, 1836): 'rather than have it the principal thing in my son's mind, I would gladly have him think that the sun went round the earth, and that the stars were so many spangles set in the bright blue firmament. Surely the one thing needful for a Christian and an Englishman to study is Christian and moral and political philosophy?' Later he appears to have modified this view, writing in 1840 (8th May): 'I do really think that with boys and young men, it is not right to leave them in ignorance of physical science. It is so hard to begin anything in after life, and so comparatively easy to continue what has begun'. Understanding science, however, remained for him something necessary for a man's livelihood, rather than an objective of education.

teaching was continued by teachers largely appointed by Arnold,⁶⁰ and Walker would have left the school with an outstanding classical grounding, which enabled him to progress on a scholarship to Oxford.⁶¹ It seems probable he would also have been well taught Mathematics.⁶²

Even though Arnold prioritised spiritual and moral qualities, Arnold's Rugby was not immune to the view that the fame and honour of the school rested on winning university scholarships,⁶³ and the school under both Arnold and Tait produced a string of academic triumphs, particularly at Oxford. This was certainly an example Walker later sought to emulate, relentlessly pursuing Oxbridge scholarship glory at both MGS and St Paul's. Beyond this rarefied Oxbridge elite, however, Arnold was someone who early appreciated that public examinations were to form a fundamental role in a social revolution,⁶⁴ and whether from this example, or its widening relevance elsewhere, Walker, too, became an early adopter of examinations as a mechanism for school and individual advancement.⁶⁵

Historians of the public schools have widely considered organised team games to be one of the defining characteristics of the late 19th-century public school, but in the 1830s and 40s, while team games were played enthusiastically at Rugby, they did

⁶⁰ Hope Simpson (1967), p.13.

⁶¹ *Rugby School Register, Vol.2, August 1842-January 1874.*

⁶² Collingwood, S.D. (1898), p.28, *The Life and Letters of Lewis Carroll*, London: T. Fisher Unwin. Lewis Carroll thought the Mathematics teaching good.

⁶³ Bamford (1960), p.157.

⁶⁴ *ibid.*, pp.197-8. Arnold wrote, 'Every profession, every institution in the country, will be strung up to a higher tone: examinations will be more common and more searching; the qualifications for every public, and profitable, or honourable office, will be raised more and more. All this "will be" certainly, and no human power can stop it; and I think, also, that it ought to be... '

⁶⁵ SIC (1868), p.307.

not form part of the curriculum,⁶⁶ and neither Arnold nor Tait took an interventionist role in organising sport. Later in the century, Walker appears personally to have had negligible interest in competitive sport,⁶⁷ and one account of his schooldays gives a vivid rationale for this indifference.

Thomas Jex-Blake, a contemporary at school and later himself headmaster of Rugby, remembered the 15-year-old Walker in a fight with George Goschen, who was to go on to become Chancellor of the Exchequer:

I can still see two pacific scholarly boys, with poor conceptions of the art of self-defence, fighting sixty years ago 'behind the chapel' with cumbrous ineptitude; for no cause at all except to amuse the ring. One lived to be a distinguished Headmaster for 40 years, first at Manchester Grammar School, and then at St Paul's School, London; whilst the other was Goschen, younger by a year, but stronger and more determined. They hit wildly, staggering about; and in a few minutes Goschen was the victor.' ⁶⁸

In terms of its infrastructure, mid-19th-century Rugby offered a sophisticated precedent for later developments. Largely rebuilt at considerable expense between 1809 and 1816 in a Tudor Gothic style⁶⁹ to designs by Henry Hakewill⁷⁰ (a notable designer of country houses), its appearance mimicked the Oxbridge colleges, with

⁶⁶ Rouse (1898), p.218, p.170. Rugby football, with its own school-specific rules, was a notable feature from the 1820s; cricket was played in the 18th century. Copley (2002), p.150. There is evidence, too, that the growing emphasis on gymnastics in Continental education was acknowledged at Rugby, and specialist gymnastic equipment was introduced as early as 1836.

⁶⁷ Mead (2004), p.90.

⁶⁸ Elliot, A.D. (1911), p.10, *Life of Lord Goschen, 1831-1907, Vol.I.*, London: Longmans, Green & Co.

⁶⁹ Rouse (1898), pp.196-207.

⁷⁰ Cust, L.H., rev. Pimlott Baker, A. (2004), '*Hakewill, Henry (1771-1830)*', *Oxford Dictionary of National Biography*, Oxford: Oxford University Press.

the inclusion of quadrangles, a cloister, turrets and battlements. As well as an imposing chapel and library, unusually at this date, as noted above,⁷¹ it also provided accommodation for teaching in classrooms.

Walker at Oxford 1850-1859: a period of education reform

Walker was, in many respects, the quintessential 'scholarship boy', a type famously catalogued in the 20th century by Richard Hoggart,⁷² but perhaps even more characteristic of the 19th century, when able and industrious boys from impoverished or modest backgrounds were only able to gain access to a university education by means of a ladder of scholarships.⁷³ Walker himself was able to proceed from Rugby to Corpus Christi College, Oxford⁷⁴ in 1849, as the beneficiary of a generous Corpus scholarship reserved for boys from the Diocese of Winchester.⁷⁵

Until the middle of the 19th century, the un-reformed University of Oxford was largely a religious institution, composed of a collection of autonomous colleges, which saw its primary function to teach classics to scholars preparing for holy orders.⁷⁶ (The

⁷¹ See Ch.4, p.116.

⁷² Hoggart, R. (1957), *The Uses of Literacy*, London: Chatto & Windus.

⁷³ Faber (1957), pp.77-8. Benjamin Jowett, the son of an unsuccessful printer, was another to benefit from this system.

⁷⁴ Fowler, T. (1893), p.414, p.305, *The History of Corpus Christi College with Lists of Its Members*, Oxford: Printed for the Oxford Historical Society at the Clarendon Press. Founded in the 16th century, Corpus was one of the smallest Oxford colleges. In November 1850, it had just 13 scholars, 4 exhibitioners and three 'gentlemen commoners'. Sir John Coleridge described it in 1843 as: 'a college very small in its numbers, and humble in its building'.

⁷⁵ *Corpus College Archive*. It is generally stated that Walker won an 'Open' scholarship to Oxford, but in fact this scholarship, worth between £80 and £100 a year, was open solely to applicants from Hampshire and Surrey (where Walker had been born). These 'closed' scholarships remained in place until after the University Reform Act of 1854. Cholmeley (1912). Cholmeley states that Walker initially turned down a Bible 'clerkship' (a bursary awarded for reading the bible aloud) at Wadham College, which would have been worth less money.

⁷⁶ Lawson, F.H. (1968), p.17, *The Oxford Law School, 1850-1965*, Oxford: The Clarendon Press.

university also admitted fee-paying 'gentlemen commoners', young men from aristocratic or wealthy homes, who were required to do little work.)⁷⁷

Walker's arrival at the university followed a turbulent period of religious conflict,⁷⁸ and coincided with a related period of structural reform⁷⁹ in which former Rugby pupils and staff played an influential role.⁸⁰ Though I have found no documentary evidence of Walker's experience at university, there can be little question that both his Rugby background and his Corpus associates⁸¹ would have involved him in debate on these questions, and, it was at this stage of his life, too, that he formed his acquaintance with Benjamin Jowett, who spearheaded much of the reform.⁸² There is, however, nothing to suggest that Walker himself was actively involved in this

⁷⁷ The Oxford Commission, established in 1850, sought to transform a status quo where 'for the majority of students reading for an ordinary degree, the minimum of knowledge acquired is so scanty as to leave all but the dullest and most ignorant unoccupied for the greater part of their academical course.'

⁷⁸ Newsome (1961), p.11. In the decade prior to Walker's admittance as an undergraduate, Oxford had witnessed a '*maelstrom of religious controversy*' over the direction of the church. Simon (1960/1966), p.283. The conservative Anglo-Catholic Oxford Movement, led by John Henry (later Cardinal) Newman, failed to 'stem the tide of liberalism' determined to come to terms with science and social change. Many of Arnold's former pupils, including his son Matthew, had been active participants on the liberal side, as had Archibald Tait (Davidson and Benham, 1891, pp.80-86).

⁷⁹ Sanderson (ed.) (1975), pp.75-77. One of the major defects of Oxford and Cambridge in the mid-century was the narrowness of the curriculum. The Oxford Commission, set up by Lord John Russell in 1850, was particularly concerned that the university did not prepare students for professional life, with medical and legal studies at a 'very low ebb' and a curriculum dominated by subjects that were 'futile and obsolete'. It also wanted to make the education both cheaper and open to a different type of student ('manufacturing and mercantile') so that the universities should send 'forth a succession of persons qualified to serve God in the state as well as the church.' Other significant aims included the creation of a body of professors, as in German universities, to teach and carry out research.

⁸⁰ Simon (1960/ 1966), p.291. The Oxford Commission resulted in the Oxford University Act of 1854. A.P. Stanley, was appointed as secretary of the Commission in 1850, the year that Walker arrived at Oxford, and both Archibald Tait and Bonamy Price (who had taught at Rugby under Arnold and Tait and later became Professor of Political Economy) also served.

⁸¹ Otter, S.M. den (2004), '*Wilson, John Matthias*', *Oxford Dictionary of National Biography*, Oxford: Oxford University Press. John Matthias Wilson, White's Professor of Moral Philosophy, and President of Corpus from 1872, was an inspirational tutor at the college. The '*last of the Oxford Utilitarians*', he was an ardent university reformer instrumental in bringing about the abolition of religious tests. A northerner by birth, he was later to encourage Walker to take on the headship of MGS.

⁸² Coutts-Trotter (1911), p.117. *The Times* obituary of December 14, 1910, states a friendship developed when Walker started sending scholars to Balliol from MGS, but, as Coutts Trotter indicates, it seems more likely the roots of this association developed at Oxford.

highly-charged climate. What seems more likely is that his chief activity was study. He graduated with First Class Honours in Classics, as well as a Second in the further Honours School of Mathematics with Physics,⁸³ an exceptional feat. His achievements here certainly belie later accusations that his personal interests lay solely in the Classics.⁸⁴

By the time Walker graduated, the Oxford University Act was about to remove the pre-requisite of holy orders for those contemplating an academic life, but clerical bands were still largely considered obligatory for schoolmasters, so it seems reasonable to argue this was not a career Walker originally contemplated.⁸⁵ Instead, in 1854,⁸⁶ as well as the Boden scholarship (for Sanskrit), he gained two law scholarships.⁸⁷ Between 1856 to 1859, he acted as a philosophy tutor at Corpus, where he held a fellowship from 1859-1867.⁸⁸ In the late 1850s, he spent six months studying in Dresden, furthering his grammatical and philological studies,⁸⁹ then acted as an external examiner on behalf of Corpus, and worked as an assistant master at

⁸³ Cholmeley (1912). Walker graduated BA in 1853, MA in 1856. Lawson (1968), p.20. Walker was one of very few candidates who took 'honours' in both schools, and one of only 13 or so students each year to be awarded a First.

⁸⁴ Shepard (1961/2002), p.71.

⁸⁵ Cholmeley (1912). Walker's religious views remain largely a matter of speculation. The 1912 DNB entry by Robert Cholmeley, who taught at St Paul's under Walker, states that: 'As a young man he was attracted by the high-church doctrine, and his former headmaster, Dr Tait, when Bishop of London, urged him to take holy orders with a view to becoming his examining chaplain.' More recently, Mead (2004) suggests that Walker had already lost any conventional faith at this time, but a diary entry written by Jowett (January 1881, Balliol Archive) following a meeting with Walker provides a plausible perspective of Walker's view later in life. ('Thought that boys excited by religion were generally vicious – disliked to see anything but humdrum ordinary religious – high church boys almost always vicious; said that he would at any time have accepted the care of a large parish.')

⁸⁶ Cholmeley (1912).

⁸⁷ *ibid.* The Tancred and the Vinerian.

⁸⁸ Mead (2004); Coutts-Trotter (1911), p.117, Cholmeley (1912). Later, he was successively proposed for and rejected the Corpus Professorship of Latin (in 1869), and the Waynflete Professorship of Moral Philosophy at Oxford.

⁸⁹ Cholmeley (1912). He continued to contribute to philological journals throughout his career.

Brighton College and private tutor.⁹⁰ In January, 1858, he was called to the bar at Lincoln's Inn, and worked briefly as a barrister on the Western Circuit.⁹¹ Then, in a reluctant about face, in 1859, on the cusp of turning 30, Walker (**FIGURE 15**) accepted the post of 'High Master' of Manchester Grammar School, where he was to become, as one historian of the school later effused: 'The Apostle of the day school system'.⁹²

HEADSHIP OF MANCHESTER GRAMMAR SCHOOL: OPPORTUNITIES FOR INNOVATION AND REFORM 1859-1876

Educational reform in a northern powerhouse: MGS in its context

Manchester's grammar school had been founded in 1515,⁹³ at a time when the Lancashire town was an important centre of the cloth trade, but, by the middle of the 19th century, Manchester itself had become **the** industrial city of the age 'the type of a new power in the earth',⁹⁴ 'a kind of symbol, a centre of modern life, which all

⁹⁰ *ibid.*

⁹¹ *ibid.*

⁹² Mumford (1919), p.323; Graham and Phythian (1965), p.57. MGS's papers relating to Walker's headship have not survived, nor have his own papers relating to this period.

⁹³ Watson (2015), p.15.

⁹⁴ Briggs, A. (1963/ 1990), p.93, *Victorian Cities*, Harmondsworth: Penguin Books. Quoted from the *People's Journal* (1847).

students of society were required to understand'.⁹⁵ This comprehension, as Asa Briggs indicates, involved the appreciation of a different type of society,

behind its smoke and squalor it seemed to be creating a new order of businessmen, energetic tough, proud, contemptuous of the old aristocracy and yet in some sense constituting an aristocracy themselves – an urban aristocracy – men who were beginning to seek political as well as economic power, power not only in Manchester but in the country as a whole.⁹⁶

Manchester's dynamism and energy and starkly contrasting wealth and poverty were brought to public attention both by the official government 'Blue Books' and other statistical accounts, and, more vividly, in best-selling novels by Elizabeth Gaskell,⁹⁷ Charles Dickens⁹⁸ and Benjamin Disraeli.⁹⁹ Neither the attractions of the town nor those of a relatively little-known school, however, were immediately apparent to a man on the brink of a promising legal career, and, despite the fact that the headship was then in the gift of Corpus Christi College,¹⁰⁰ Walker initially showed reluctance to take the job.¹⁰¹ Once he had done so, however, it was clear from the outset that his mission was to implement a policy of modernisation, turning round an 'under-performing' school which had been shackled to the legally enshrined wishes of its founder and preparing it to meet the demands of the contemporary world.

⁹⁵ *ibid.*, pp.92-3.

⁹⁶ *ibid.*, p.94.

⁹⁷ *Mary Barton, A Tale of Manchester Life* (1848); *North and South* (1854).

⁹⁸ *Hard Times* (1854).

⁹⁹ Disraeli, B. (1844/1982), *Coningsby, or a New Generation*, Oxford: Oxford University Press. Disraeli's best-selling novel articulated his 'Young England' creed, contrasting the new money of the North with the old money of the South.

¹⁰⁰ Mumford (1919), p.476.

¹⁰¹ *ibid.*, p.326.

The foundation deed relied heavily on the statutes of St Paul's.¹⁰² As at Colet's school, tuition was free,¹⁰³ and though MGS was dedicated to the county of Lancashire, it welcomed entrants from 'what country or shire soever he be'.¹⁰⁴ Like St Paul's, too, the school was not specifically intended for the poor,¹⁰⁵ and the non-clerical nature of the foundation was underlined by the founder's specifications that the governors ('feoffees') were to be 'twelve honest gentlemen and honest persons within the same parish of Manchester'.¹⁰⁶ The deed was to provide the legal basis on which the school evolved, and while the feoffees were entitled to alter the statutes as contemporary needs demanded, this could only be done by the costly process of petitioning the Chancery Court.

As Brian Simon has chronicled, the long battle for a curriculum more relevant to the modern world began in the Midlands and north of England in the mid 18th century,¹⁰⁷ where a population which already featured prominent industrialists, professional men and scientists shared an outlook which 'sharply differentiated the leading citizens of Birmingham and Manchester from the England of Whig and Tory, parson and squire, established Church and traditional universities'.¹⁰⁸ Frequently Nonconformist in their religious beliefs, often educated at universities north of the border,¹⁰⁹ these men helped to establish new institutions for new ways of learning.¹¹⁰

¹⁰² Graham and Phythian (1965), pp.9-10; Mumford (1919), p.474, p.481.

¹⁰³ Mumford (1919), p.477.

¹⁰⁴ *ibid.*, p.479.

¹⁰⁵ *ibid.*, p.480.

¹⁰⁶ *ibid.*, p.482.

¹⁰⁷ Simon (1960/1966), pp.32-33, pp.102-125. As early as 1765, Joseph Priestley argued that a relevant contemporary education should include modern history, policy, art, manufacturing, sciences and commerce.

¹⁰⁸ *ibid.*, p.17.

¹⁰⁹ *ibid.*, p.85, Debarred from Oxford and Cambridge for their religious beliefs, Nonconformists often attended Scottish universities, which were closely connected with new industrial and social developments.

¹¹⁰ *ibid.*, pp.104-9.

By the 1820s, the utilitarian perspective of Jeremy Bentham,¹¹¹ who championed a pragmatic education for the middle class, was also gaining widespread support throughout England, and their philosophical perspective resonated particularly strongly in the north, resulting in sharp attacks on both the practice and purpose of existing endowed grammar schools with their continued concentration on the study of classics.

MGS, like many of the country's endowed grammar schools, had increased the number of boarders in the 18th century,¹¹² attracting well-off parents¹¹³ willing to pay substantial residential fees to avail themselves of the free tuition and foundation scholarships which contributed to the cost of a university education.¹¹⁴ Pressure was growing, however, from radicals within the city to redirect the endowment to work more effectively for the local population,¹¹⁵ whose educational needs were increasingly pressing. In response, the feoffees petitioned the Court of Chancery to redeploy funds from the endowment to build an 'English' or commercial school alongside the existing grammar school.¹¹⁶ The scheme, agreed in 1833, formalised the teaching of English, arithmetic, Mathematics and French, and introduced

¹¹¹ *ibid.*, p.80.

¹¹² Watson (2015), p.26.

¹¹³ *ibid.*, pp.37. At this stage, the sons of the gentry, clergy, professional classes, merchants and manufacturers accounted for two-thirds of pupils.

¹¹⁴ *ibid.*, pp.26-27.

¹¹⁵ *Manchester Times and Gazette*, Saturday, January 19th, 1833: Issue 223. When, the findings of a Charity Commission inspection into the endowment were published in full in *The Manchester Times and Gazette* in 1833, radical leaders argued that the school should do more to raise the level of education for boys from the poorest families.

¹¹⁶ Watson (2015), p.37.

instruction in German and Natural Philosophy (science). The English school was opened in 1837.¹¹⁷

Further amendments to the statutes over the course of the next 15 years effectively brought an end to boarding,¹¹⁸ raised the status of the English school to parity with the Classical school, gave overall responsibility for both schools to the High Master of the Classical School, and decreed that all three schools (the English School, the Lower - i.e. junior - School and the Upper School) were 'to be considered as a connected establishment, called the Manchester Free Grammar School'.¹¹⁹ In 1856, a new set of feoffees, all powerful local men,¹²⁰ drew up a set of recommendations for how the schools should henceforth operate,¹²¹ but, it wasn't until 1859 that the long-serving head resigned and Walker arrived to implement their plans.¹²²

Walker's development of middle-class education in England's foremost industrial city

From the outset, the education Walker planned was designed to meet the needs of a broad swathe of the Manchester middle classes and afford scope for many forms of talent. On his arrival, he quickly re-organised the academic framework of the upper and lower Grammar school and the English school, drawing up a 30-hour weekly

¹¹⁷ *ibid.*, p.39.

¹¹⁸ *ibid.*

¹¹⁹ Graham and Pythian (1965), p.44.

¹²⁰ Watson (2015), p.41. The new trustees were drawn from leading merchants in Manchester and Salford. The chair of governors was Sir Elkanah Armitage, the son of a weaver who had made his fortune as a cloth manufacturer, going on to become an influential Liberal politician and, in 1846, mayor of Manchester.

¹²¹ *ibid.*, pp.41-42. Their report found standards low throughout.

¹²² *ibid.*, p.42.

timetable,¹²³ which included not only Latin and Greek, but English, French and Maths.¹²⁴ He made Latin compulsory throughout¹²⁵ and began to set Maths by ability.¹²⁶ Though a Chancery decree of 1849 had allowed for instruction in German and Natural Science, when Walker gave his testimony to the Schools Inquiry Commissioners in 1865, he had still found no means to provide these.¹²⁷ From the start, however, he employed both internal exams¹²⁸ and the newly established external examinations, the Oxford Local,¹²⁹ to demarcate progress and vaunt the school's achievements.

By the time Walker submitted his written response to the Schools Inquiry Commissioners, all three schools were heavily oversubscribed and Walker had introduced an entrance exam to select appropriate boys from 'nearly every class of the community'.¹³⁰ Standards had improved immeasurably,¹³¹ but the schools were

¹²³ Watson (2015), p.43; Mumford (1919), p.327. Previously, the teachers in the English school had worked independently of those in the Classical schools.

¹²⁴ SIC (1868), Vol.III, p.309.

¹²⁵ *ibid.* A decision no doubt explained by Walker's statement to the Schools Inquiry Commissioners that 'Few parents, I think, send their children to the school who do not for some reason desire them to receive an education wholly or in part classical.'

¹²⁶ Watson (2015), p.43; Mumford (1919), pp.330-331. Walker invited F.A. Aldis, who had been second Wrangler at Cambridge, and E.L. Balmer of Magdalen College, Oxford, to organise a Maths curriculum suitable for all classes. A Mathematical and Physical Sixth was subsequently created for boys wishing to proceed to engineering and mining, and boys were encouraged to enter for the South Kensington Examinations in Mathematics as well as for the Oxford Local Examinations.

¹²⁷ SIC (1868), Vol.III, p.307. As Walker acknowledged in his evidence to the SIC, 'the course of education is too contracted. There are not and these cannot be provided from the present funds, masters for natural science, German, etc.'

¹²⁸ *ibid.*, p.305.

¹²⁹ Mumford (1919), p.331. In 1860, the Oxford Examining Board made Manchester one of its local centres. Watson (2015), p.43. Exceptionally, Walker entered every eligible pupil, about 40 each year.

¹³⁰ SIC (1868), Vol.III, p.305, p.308. James Bryce, assistant commissioner of the Schools Inquiry Commission, stated, 'Manchester Grammar School is used by all classes, but the really poor are scantily represented. A third of the boys are the sons of shopkeepers, clerks and warehousemen. Another third are the sons of the better shopkeepers, and merchants of moderate fortune. The rest are the sons of professional men, for owing to its classical character the Manchester school is par excellence for clergy, doctors and lawyers.'

¹³¹ Watson (2015), p.43. By 1863, all 12 boys in Walker's Classical Sixth were elected to open scholarships or exhibitions at Oxford and Cambridge.

over-crowded¹³² and understaffed,¹³³ with the salaries of staff 'inadequate'.¹³⁴

Financial constraints meant there was no means to carry out further improvements.

Both the site ('The site is objectionable, as being surrounded by the lowest class of the inhabitants of Manchester')¹³⁵ and the buildings ('moderate')¹³⁶ came in for criticism from the Schools Inquiry Commissioners. With considerable justification, as the school remained on its original mediaeval site sandwiched between the noisome River Irk and the noisy railway lines, a location which Frederick Engels condemned as possessing 'unqualifiedly the most horrible dwellings which I have yet beheld'.¹³⁷

The miserably cold schoolhouse,¹³⁸ which had replaced the original building in 1776,¹³⁹ had no gas lighting, no washing facilities,¹⁴⁰ no dining hall and 'in effect, no playground and no means to build a fives court or a gymnasium much less to provide a drill master or physical instructor'.¹⁴¹

The Schools Inquiry Commissioners made detailed recommendations for the space required to deliver a revised curriculum. Though they placed emphasis on the study

¹³² *ibid.* Class numbers were 40 to 50.

¹³³ *ibid.*, pp.43-4. Lack of funds made it difficult to recruit new staff or broaden the curriculum. The initial solution agreed by the feoffees was to charge every boy moderate fees, except some 'whom The Trustees may deem it necessary on account of their poverty to admit gratuitously'. This created a furore. The feoffees, however, refuted accusations that poor boys were being deprived of a free education, pointing out that most boys came from the ranks of those who would not be deterred by paying fees. By this point, too, grammar schools elsewhere were charging fees.

¹³⁴ SIC (1868), Vol.III, p.307.

¹³⁵ *ibid.*

¹³⁶ *ibid.*

¹³⁷ Engels, F. (1845/1976), p.81, p.82. *The Condition of the Working Class*, St Alban's: Panther Books; Bentley (1990), p.63, p.64. Though a move to the suburbs was mooted, proximity to the railway station was considered of paramount importance.

¹³⁸ *ibid.*, p.40.

¹³⁹ Watson (2015), p.29.

¹⁴⁰ *Ulula*, July 1892.

¹⁴¹ SIC (1868), Vol.III, p.305.

of classics,¹⁴² they also specified: ‘one or more rooms’ for the lower school;¹⁴³ another room/rooms to be used ‘for writing and the higher branches of arithmetic and mathematics to all scholars of the school requiring it, except the lower school’; another, for the instruction of all the scholars in ‘general English literature’; one or more rooms for instruction in ‘French and German languages and literature and in other modern languages and literature’; and, finally, ‘appropriate and sufficient accommodation for the instruction in such arts and sciences as the dean and the high master shall from time to time direct to be taught herein’. Where and how these additional rooms were to be provided was left to the trustees to resolve.¹⁴⁴

The Schools Inquiry Commissioners’ scheme for MGS resulted in the school’s organisation into a ‘Classical’ and ‘Modern’ side, and the commitment to provide a free education for 250 able boys, regardless of income. Revenue for instruction was to be raised by increasing numbers to 500¹⁴⁵ and the introduction of fees,¹⁴⁶ but the school’s financial difficulties in relation to infrastructure remained pressing.¹⁴⁷

Eventually, however, Edward Langworthy, vice-chair of the trustees, provided a site,¹⁴⁸ and he and his fellow trustees subscribed the funds for a building for 500

¹⁴² *ibid.*, p.323. ‘All the masters of the said school shall be directed to encourage as much as possible the study of classical literature in the school.’

¹⁴³ *ibid.*, p.319. Dedicated to teaching ‘the rudiments of the English language and of classical literature, in writing, and in the fundamental rules of arithmetic.’

¹⁴⁴ *ibid.* ‘The accommodation herein before directed to be provided for carrying into effect the proposed system of education may, if the trustees think fit, be provided in any buildings belonging to the charity, or in any building or part of building that they may think fit to hire, or which may be placed at their disposal for that purpose.’

¹⁴⁵ *The Manchester Guardian*, 26th October, 1871. The SIC report indicated the requirement in Manchester and Salford of 5000 secondary places for boys between the ages of 8-16, 1500 fewer than then available. Their objective was to make this education available as widely as possible.

¹⁴⁶ Watson (2015), p.44.

¹⁴⁷ *ibid.*, p.46. The fees provided only sufficient revenue to run the school on a daily basis.

¹⁴⁸ *ibid.*, pp.46-8. In consequence, Langworthy, a wealthy cotton manufacturer, is considered the school’s ‘second founder’.

boys, which would allow dedicated teaching facilities for art, Mathematics and Classics and free the 1776 building to be converted for science teaching.¹⁴⁹

The impact of the first new building built during Walker's headship at MGS

The first phase of the Walker-driven revolution was completed with the opening of the new building in 1870 (**FIGURE 16**). In design terms, it was solid but unexciting,¹⁵⁰ a contrast with the building work undertaken by MGS's immediate neighbours, Chetham's,¹⁵¹ who were, at this period, employing the already well-established Alfred Waterhouse.¹⁵² The latter's endeavours were reported in the architectural press; the design of the new MGS building passed without comment.

If the buildings themselves were of negligible architectural significance, their completion was, nonetheless, considered a major civic event, celebrated with an impressive banquet attended by 150 dignitaries, among them Sir James Kay-Shuttleworth, a myriad of professors from Owens College (precursor of Manchester University) and Benjamin Jowett. The speeches received full coverage in the national as well as the local press,¹⁵³ and the keynote speech by Lord Derby,¹⁵⁴ who

¹⁴⁹ *ibid.*, p.48; Mumford (1919), p.345. On November 17, 1869, the High Master was requested to confer with H.J. Roby to ensure the curriculum was as up-to-date as possible. Roby was responsible for writing much of the SIC report which led to the Endowed Schools Act.

¹⁵⁰ *MGS Governors' Minutes*, 5th April, 1871. The architect is not named in the school accounts. Hartwell, C. (2001), p.70, *Manchester*, London: Penguin Books. The guide gives Barker and Ellis, then a young architectural practice, as the firm responsible.

¹⁵¹ Now Chetham's School of Music, http://library.chethams.com/wp-content/uploads/sites/3/2016/09/Information_note_2_English_version_July_2015.pdf (downloaded 6.5.2018.) Today a specialist independent school, Chetham's was then a Charity School.

¹⁵² Pevsner, N. (1969), p.298. *The Buildings of England, South Lancashire*, Harmondsworth: Penguin Books. Waterhouse began the design in 1871. The building was completed in 1876-8.

¹⁵³ *The Standard*, October 26th, 1871; *The Manchester Guardian*, October 26th, 1871.

¹⁵⁴ *ibid.* The school's connection with the Derby family dates to its origins. Steele, D. (2004), 'Stanley, Edward Henry, 15th Earl of Derby (1826-1893)', *Oxford Dictionary of National Biography*, Oxford: Oxford University Press. Edward Henry Stanley, the 15th Earl, had attended Rugby under Arnold and Tait. Despite Liberal

had served on the Schools Inquiry Commission,¹⁵⁵ provides a valuable analysis of the school's perceived role in a broader educational context.

I suppose the process that has been going on here is not peculiar to this city or this country. Partly by the use of old endowments, partly also and to a much greater extent, by the liberality of living men and women in every part of England, and in almost every large town, a foundation is being laid for teaching of a high class to be given at a very moderate cost; and if the plans... of the educationists of the present day are realised to their full extent, we shall have within the present generation in connection with this and the other schools a system of exhibitions and scholarships, open to competition, and holding out to lads and to young men of exceptional ability the prospect of a high class education, which will be for all practical purposes very nearly gratuitous. It is not at all unreasonable to expect that in a few years we may have a system of teaching so far extended over the whole face of the country that no boy of real talent need be kept back by mere poverty from whatever chance of distinction might be open to him – and these chances will undoubtedly not be few - with free admissions, as you have it now, to the Civil Service of the State...; with military colleges open also to competition; and with an increased proportion of educational appointments of one kind or another (and I suppose I ought to reckon among these educational appointments, situations on the press, which is the educator of us of all).¹⁵⁶

leanings, he served as Secretary of State for Foreign Affairs in two Conservative governments, before joining the Liberal party in 1879.

¹⁵⁵ Allsobrook (1986), p.5.

¹⁵⁶ *The Standard*, October 26th, 1871.

Benjamin Jowett, who spoke after Lord Derby, singled out the school's academic success (which placed 'The Manchester Grammar School on a level in point of literary merit and usefulness with the great public schools of the country')¹⁵⁷ and specified Walker's role in this development.

There were few things in this world more satisfactory than to see a great institution growing up from small beginnings, and becoming the medium for diffusing the influence of education over a whole city – to see a man, perhaps reserved in his exterior, who had the idea in his mind and was thinking day and night of the good of his pupils, preferring their interests and those of his masters to his own, until he became gradually recognised by his fellow citizens, and they perceived that he was labouring for their good. If Mr Walker remained with the citizens of Manchester, and they continued their support to him, he (Dr. Jowett) believed that the Grammar School would confer benefits on the city of Manchester beyond those which any similar institution had ever conferred on a great city, and he ventured to add that Mr Walker would become the most distinguished schoolmaster in England (Applause).¹⁵⁸

Benjamin Jowett attended the banquet both as a friend of Walker and as part of his ongoing 'outreach' mission to attract the brightest students to Oxford and convince local parents that a university education was neither as expensive nor as impractical as they might have assumed.¹⁵⁹

¹⁵⁷ *The Manchester Guardian*, October 26th, 1871.

¹⁵⁸ *ibid.*

¹⁵⁹ *ibid.* Jowett stressed in his speech: the university's increased numbers; the new seriousness of the students; the expanded curriculum, and the competitive cost, arguing that for those in receipt of scholarships – 'the education became almost free.'

As well as their symbolic function as a civic ornament, the buildings, of course, served a practical purpose as the instrument by which a radically altered curriculum and improved discipline¹⁶⁰ could be successfully delivered.

Walker's development of scientific education at MGS

The expansion of the provision for science after 1870s was dramatic and was clearly driven by Walker and the trustees rather than by the imperatives laid down by the Schools Inquiry Commissioners, since the latter, while acknowledging that science and art instruction were necessary, had given considerable flexibility in how this requirement should be met, and had, indeed, limited the sum to be spent on them.¹⁶¹ The view presented of Walker at St Paul's was of a head devoted to the classical tradition, with negligible interest in science.¹⁶² (Indeed, the joke he told against himself - 'Science is very expensive; I believe in Latin grammar and the cane. They are cheap and efficient.'¹⁶³ – has been frequently cited to illustrate this point). His work at Manchester, however, emphatically contradicts this perception.

¹⁶⁰ *Manchester Times*, August 5th, 1871. In his speech day address, Walker praised 'the scholars on the excellent discipline of the schooling, which he attributed partly to the arrangement of the school in the new building.'

¹⁶¹ SIC (1868), Vol.III, p.319. 'The trustees shall every year appropriate out of the income of the endowment such yearly sum not exceeding £200.'

¹⁶² Mumford (1919), p.336. Mumford says of Walker's introduction of physics and chemistry that these were subjects 'of which he knew and cared little'.

¹⁶³ *ibid.*, p.355.

As *The Manchester Guardian* noted on his death 'Mr Walker welcomed the "new learning" without distrust'¹⁶⁴ and in 1865, he testified to the SIC that: 'If an orderly and comprehensive system of scientific education could be constructed, it should hold the first place in a boy's education, literary training the second.'¹⁶⁵ The statement can hardly be considered extraordinary in someone working in Manchester at this time, a city where the study of science was of the utmost concern.

From at least 1861, Walker was teaching evening classes at Owens College,¹⁶⁶ and, in 1868, he formed part of a deputation to Parliament to have the university dedicated to the study of science.¹⁶⁷ Owens took it as a given that Britain needed not just scientifically-minded workers but scientifically-trained managers, and, with its emphasis on chemistry and engineering, it was one of the few institutions in the country that addressed this growing requirement for national prosperity.¹⁶⁸

As Henry Enfield Roscoe,¹⁶⁹ celebrated Professor of Chemistry at Owens College from 1867, told the Samuelson Committee in 1868: 'This district of which Manchester

¹⁶⁴ *The Manchester Guardian*, December 14th, 1910.

¹⁶⁵ SIC (1868), Vol. III, p.306. Adding the rider, 'guarantee being taken that their literary training should not be neglected.'

¹⁶⁶ Thompson (1886), p.227; Kargon (1977), p.155. In 1846, John Owens, a Manchester merchant, left nearly £100,000 to establish a University College to teach 'such branches of learning and science as now and may be hereafter taught in the English universities'.

¹⁶⁷ Thompson (1886), p.325, p.327. The circular delivered by the deputation stated: 'a conviction is now widely spread that there should be in England, as in France and Germany, colleges giving instruction, at once complete and thorough, in all the leading branches of applied and experimental science. It is felt that what is wanted is the foundation, not of workshops for teaching manufacturing processes, but of schools of science (1), in which those who are to direct the industry of the country may receive thorough training in mathematics and the principles of physical science; (2) in which those artisans who have proved themselves to be possessed of superior parts may, by acquiring a knowledge of science, fit themselves to fill more important positions; and (3) in which competent teachers may be trained both for the higher posts and for teaching soundly the rudiments of science in primary and secondary schools.'

¹⁶⁸ *ibid.*, p.197.

¹⁶⁹ Kargon (1977), pp.167-68, p.182. Roscoe had trained with R.W. Bunsen in Heidelberg before being appointed to Owens College at the age of 24. Here, he built a nationally famous chemistry department.

is the centre has special need of a high class of science instruction, inasmuch as a great portion of the national industry there carried on is founded on scientific principles and laws. A knowledge of those laws and principles is in the first instance necessary in order that such industry should flourish and grow.¹⁷⁰

The requirement for scientific training was also increasingly linked to the need for qualifications for a broad range of careers. In 1858, the new charter for the University of London, introduced science degrees designed to be more attractive to the sons of the industrial middle classes,¹⁷¹ and its BSc degree required knowledge of Mathematics, physics, chemistry and biology.¹⁷² Changes to preparatory medical training also necessitated a scientific background,¹⁷³ and these alterations were accompanied by the introduction of written tests for the domestic and Indian Civil Services,¹⁷⁴ for the Indian Engineer Establishment of the Department of Public Works, for the Pharmaceutical Society, and, later, for the Institute of British Architects and Institute of Actuaries, all with a scientific component.¹⁷⁵ At Owens College, students¹⁷⁶ being prepared for the matriculation exam for both the BA and

¹⁷⁰ *Report on the Select Committee on Science Education* (1868), p.278. Kargon (1977), p.189. Manchester was one of the country's most important engineering centres, and the wealthy locomotive manufacturer Charles Beyer, who in 1876 bequeathed over £100,000 for endowed professorships at Owens College, became a friend of Walker, so much so that they holidayed together. (*The Manchester Guardian*, December 14th, 2010)

¹⁷¹ *ibid.*, p.171.

¹⁷² *ibid.*, p.171.

¹⁷³ *ibid.*, p.172. Graduates of the University of London who took the degree of Bachelor or Doctor of Medicine were entitled to practice medicine by the University of London Medical Graduates Act of 1854. The University College calendar for 1857-8 records that candidates for these degrees had to have attended a course in practical chemistry.

¹⁷⁴ *ibid.*, p.173. By 1865, about a third of the marks in the Indian Civil Service examinations were devoted to Mathematics, the natural and physical sciences. Mumford (1919), p.348. The Civil Service Class at MGS was established in 1869, when boys were encouraged to take special classes at Owens College in mining, engineering and geology.

¹⁷⁵ Kargon (1977), pp.172-3.

¹⁷⁶ *ibid.* The intake of day students was similar to that of MGS. About half were the sons of manufacturers and merchants, a quarter children of the professional class, an eighth of tradesmen and shopkeepers. The average age of the day students was about 18, the youngest entered at 14. The average fee (in 1868) was £15, slightly above that of MGS, but the laboratory classes, at £21, were much higher.

BSc were required to study Mathematics, natural philosophy and inorganic chemistry, alongside Latin, Greek, history and either French or German.¹⁷⁷

Mirroring developments at Owens,¹⁷⁸ in 1867, Walker appointed the school's first chemistry teacher, and in 1869 the first physics teacher, and achievement in this area was immediate.¹⁷⁹ It was not, however, till the rebuilding of the school in 1870/1871, which allowed the construction of a science laboratory, that these subjects developed at their subsequent rate. In 1871, Walker appointed Francis Jones, who had studied at Edinburgh and Heidelberg, to bring to the school 'the exact disciplinary methods of teaching science by each individual pupil performing his own experiment, which was common in Germany, but hitherto only adopted in England at the Owens College and the School of Mines London.'¹⁸⁰ By 1873, all boys were being taught science nine-and-a-half hours a week, with sixth-form scientists receiving 17 hours of science instruction,¹⁸¹ and, in 1874, Walker grouped several classes together to form a science school under the control and direction of Government Inspectors.¹⁸²

¹⁷⁷ *ibid.*, p.177.

¹⁷⁸ Mumford (1919), p.364. Indeed, when the new chemistry laboratory, named after C.F.Beyer, was opened in the early 1870s, one of the governors was concerned that there might be 'some educational overlapping'.

¹⁷⁹ *The Manchester Guardian*, October 26th, 1871. Lord Derby in his speech on the opening of the new school commented: '...out of 18 scholarships given for Natural Science at Oxford in the last three years, six... a third of the whole, were won by boys coming from the school.' As he went on to confirm (emphasising its relevance to British industry), 'I believe that scientific teaching is placed fully upon an equality with other branches of study, but that, as we know is not the case throughout England in general, and I can only say that I hope the example we have set in that respect will be followed ("hear, hear").'

¹⁸⁰ Mumford (1919), p.337. This 'heuristic' approach to science was to be the one taken at St. Paul's. See Ch.8, p.277.

¹⁸¹ *Commission on Scientific Instruction and the Advancement of Science*, Sixth Report, Parliamentary Papers, Vol 4, Session 1875, p.1., quoted in Meadows, A. J. and Brock, W. H. (1975), p.111. To appreciate the rarity of this, when the Devonshire Commission on Science Instruction and Scientific Advancement published their survey of public and endowed schools in 1875, they concluded: '*Among the 128 Endowed Schools from which we have received returns, Science is taught in only 63, and of these only 13 have a laboratory, and only 18 Apparatus, often very scanty.*'

¹⁸² Mumford (1919), p.365. Until the end of the century, Manchester repeatedly gained a high proportion of the science scholarships at Oxford and Cambridge.

It was at Manchester, too, that Walker first developed the study of drawing, another pre-requisite for science and industry. He hired the first art master in 1860 to teach three hours a week,¹⁸³ and, in the new building, the Drawing School of MGS (which also provided evening classes to external students), became recognised by South Kensington as a Government Art School.¹⁸⁴ Mumford notes that one of the early arguments for the extended use of drawing as a school subject, was that, 'by it, boys might learn control of the finer movements of the hand in case they took up such handicrafts as surgery. This would particularly apply to the Grammar School, for surgery was a career which had always attracted a considerable proportion of the scholars.'¹⁸⁵

Walker's approach to sport at MGS

The issue of providing adequate facilities for exercise was a constant irritant throughout Walker's time at Manchester. Like many of its counterparts, the 1776 grammar-school building had virtually no external space and, as Walker informed the Schools Inquiry Commissioners bluntly, no gymnasium. Though the first gym master was appointed in 1869,¹⁸⁶ the 1870 building didn't remedy the omission, and parents and boys were increasingly fretful about its lack, something Walker publicly acknowledged in his first speech day in the new building.¹⁸⁷

¹⁸³ *ibid.*, p.335.

¹⁸⁴ *The Builder*, March 9, 1878.

¹⁸⁵ Mumford (1919), p.336.

¹⁸⁶ Watson (1915), p.53.

¹⁸⁷ *Manchester Times*, August 5th, 1871.

Neither Walker's attitude to sport nor those of his parents and pupils, however, were related to the disciplinary and corporate objectives surrounding its provision in the public boarding schools. In Manchester, according to writers in the school magazine, *Ulula*,¹⁸⁸ the role assigned to sport in the 'great town schools', 'deprived of certain benefits which are inseparable from the possession of green fields and open spaces' was, by necessity, restricted to the 'physical education in all those branches, which can be successfully carried on within the town' (i.e. not team games). That said, at least for these authors, it was a matter of civic pride, that a swimming bath, rackets courts and a gymnasium should be funded by the citizens of the town 'to encourage loyalty both to the school and the town'. The want of these facilities, it was argued, meant the school was 'a disgrace – and a crying disgrace – to Manchester'.

The design of the second new building constructed under Walker at MGS

By the time the 1871 building was opened it was already too small for the school's swelling numbers, making it necessary to hire every available room in the street as temporary classrooms.¹⁸⁹ Before Walker's resignation in 1876,¹⁹⁰ the governors had already decided to pull down the old grammar school building and replace it with an extension to the 1870 building which would provide adequate accommodation for 1000 boys.¹⁹¹

¹⁸⁸ *Ulula*, 6th April, 1874.

¹⁸⁹ Watson (2015), p.64.

¹⁹⁰ Mumford (1919), p.517.

¹⁹¹ *British Architect and Northern Engineer*, 2ND May, 1877. The magazine announced a public appeal to build a new school.

The new buildings, which opened for school work in October, 1880,¹⁹² were designed by Mills & Murgatroyd,¹⁹³ a higher profile firm than their predecessors.¹⁹⁴ It was lauded by the *British Architect* as ‘one of the most completely finished buildings of its kind in the kingdom’.¹⁹⁵ As well as a vast gym¹⁹⁶ (‘second to none in Europe’),¹⁹⁷ it included nine additional classrooms, a dining hall, a lecture theatre, a library for the use of the Classical Sixth, and a chemical school, containing a laboratory and study rooms.¹⁹⁸ These plans had all been instituted under Walker’s direction. It is clear, by the time he left for St Paul’s, he had considerable experience of the building he believed would be required to provide the most up-to-date education.

WALKER, THE CHAMPION OF ‘GETTING ON’: CONTEMPORARY TESTIMONY TO THE CHARACTER OF THE MAN

Little testimony of Walker’s life survives from his own hand other than official utterances at Speech Days and other public occasions, but a vivid and consistent

¹⁹² *ibid.*, p.365.

¹⁹³ Bentley (1990), p.75.

¹⁹⁴ Hartwell (2001), p.70, p.155, p.120. The firm were also responsible for Manchester’s Assembly Rooms of 1857, and the High School for Girls (1881-8) in the sort of ‘Northern Gothic established by Waterhouse’.

¹⁹⁵ Bentley (1990), p.75.

¹⁹⁶ *ibid.* 120 ft by 135ft by 30 ft high. It allowed 500 boys at once to drill indoors. The school, however, still had no outside space.

¹⁹⁷ *ibid.*, p.75

¹⁹⁸ *ibid.*, p.75, p.70. Mumford., pp.365-6. The role of science was emphasised by Walker’s successor, Samuel Dill, who, like Walker, had been appointed by Corpus Christi College, Oxford: ‘The classical system, in schools as old as ours... has justified itself by results. It needs no defence, provided that it does not, in the altered circumstances of our time, claim any exclusive right; but the needs of the great commercial societies like our own, with ramifications extending all over the globe, and the increasing number of subjects which claim attention, now imperatively require us to provide for a large number of boys an education which, while it does not sacrifice the training of the faculties, shall have an immediate and direct bearing on everyday life. To shape and develop such a curriculum is the task of the schoolmaster in the great industrial centre.’

picture of the man is presented through the eyes of numerous former pupils¹⁹⁹ and, to a lesser extent, of staff.²⁰⁰

A larger than life presence, his booming voice (which a *Vanity Fair* sketch suggested 'could be heard through a 14ft brick wall')²⁰¹ struck fear into generations of schoolboys,²⁰² and his short and powerful bulk was sufficiently intimidating to deter miscreants without any threat of physical chastisement. Though not, as *The Manchester Guardian* wrote on his death, 'fluent in continuous speech', his ready wit gave him equal command 'of the knock-down blow of the bludgeon and the quick parry and thrust of the rapier'.²⁰³

At both MGS and St Paul's, Walker demonstrated a clear and focussed vision, with a relentless drive for improvement that never deserted him, and which he never chose to spread to a wider sphere.²⁰⁴ This ambition, certainly unconsciously, perhaps neurotically, may be seen as a desire to replicate the achievements of his own boyhood and spread these to the widest possible audience, providing the educational means for clever boys from a broad range of backgrounds to climb the

¹⁹⁹ Coutts-Trotter (1911); Marcy (1932); Sams (1933); Chesterton (1936); Bentley (1940); Nash (1949/1988); Littlewood (1953); Woolf (1960); Shepard (1961); Mackenzie (1963); Bailey (undated). He is also vividly portrayed in semi-autobiographical novels by Compton Mackenzie (*Sinister Street*) and Ernest Raymond (*Mr Olim*). The latter described him as 'a short man with a large, sometimes soup-stained beard. He smelt of cigar smoke.'

²⁰⁰ Armitage, F.P. (1911), pp.198-205, *Natural Science at St Paul's School* in Gardiner, R.B., Lupton, J. (eds.) (1911); Harris, R. (1911), p.208. *Art Teaching at St Paul's* in Gardiner, R.B., Lupton, J. (eds.) (1911). Walker's obituary in the 1912 *Dictionary of National Biography* and the affectionate sketch that appeared of him in *Vanity Fair* (27th June, 1901) were also written by a former teacher, Robert Francis Cholmeley.

²⁰¹ *Vanity Fair*, 27th June, 1901.

²⁰² This characteristic is noted by virtually all later commentators.

²⁰³ *The Manchester Guardian*, December 14, 1910.

²⁰⁴ Cholmeley (1912); Mead (2004). Walker took little part in general educational movements, though in 1868 and 1869, was public examiner at Oxford for the honours school of literæ humaniores, and, in 1900, sat with Dr Warre, headmaster of Eton on the commission for the education of officers in the army. In 1894, he was made an honorary fellow of Corpus; in 1899, he received the degree of Litt.D. from Victoria University (later Manchester University).

ladder of life. While Thomas Arnold's mission had, above all, been to train his pupils in 'godliness', Walker's, equally assuredly, was to embed self-discipline and intellectual industry,²⁰⁵ channelling these to the very worldly purpose 'of getting on'.²⁰⁶ (Particularly at MGS, the school moulded by the head and governors, mostly self-made men, was intended to further the creation of self-made men of the future.)

Walker held the view that a boy's natural ability could only be properly developed in alliance with hard work and motivation.²⁰⁷ (Elaborating his philosophy at a speech day in 1873, he said; 'The chief requisites for success is a determined will, without which genius itself is powerless, but, armed with which, the dullest boy may achieve').²⁰⁸ To achieve his objectives, he had no reservations about putting boys under considerable academic pressure, and, as in his own case, had almost no conception of the term 'overwork'.²⁰⁹

For Walker, the outward and visible sign of this state of grace was winning a classical scholarship to Oxford or Cambridge,²¹⁰ and those he put under the most pressure were those most likely to achieve this objective,²¹¹ but his 'marvellous intuitive power of gauging a boy's qualities...almost at sight'²¹² was never restricted solely to those with an aptitude for classical learning. At MGS, for example, he

²⁰⁵ Coutts-Trotter (1911), p.120.

²⁰⁶ Watson (2015), p.49. John Hamilton quoted in Watson. Hamilton, later a distinguished Law Lord, 1st Viscount Sumner, entered MGS in 1870, going on to win a classical scholarship to Balliol.

²⁰⁷ Mumford (1919), p.355.

²⁰⁸ *ibid.*

²⁰⁹ *Ulula*, July, 1924.

²¹⁰ Woolf (1960), p.74; Watson (2015), p.49.

²¹¹ *ibid.*, pp.49-50. Lord Sumner told the story of a boy who suddenly changed his mind about Oxford half way through the entrance exam. 'Mr Walker looked at him and said: "Go home to your father, boy, and tell him I never wish to see your face again."'

²¹² Coutts-Trotter (1911), p.119. *The Manchester Guardian* (December 14, 1910) also noted this faculty '...no schoolmaster in England, could approach him in the faculty of drawing out of a boy all that was in him.'

helped an able boy move from the classical side to science, providing him with the financial means to stay on for the extra year required to do so;²¹³ and, at St Paul's, having early on detected G.K. Chesterton's literary ability in an 'underground' magazine produced with a set of friends, he catapulted the future author of the Father Brown stories to parity with the highest form in the school.²¹⁴

To boys, he was a formidable and frightening presence ('to say that he ruled by fear would be wholly untrue; but fear was always in the background'), not only because of his 'sarcastic, almost brutal exterior', but because of his fierce anger, most readily expended on those he felt were wasting their talents.²¹⁵ Unlike his predecessors, he did little teaching, but saw his function primarily 'to walk about and hear everything'.²¹⁶

His thorny façade masked many attractive qualities. He never preached, and always treated boys as reasonable and intelligent beings, not afraid to joke and show flashes of his cynical humour.²¹⁷ He identified and kept, often for years, highly

²¹³ Mumford (1919), p.349. Lazarus Fletcher, later knighted as a distinguished mineralogist and director of the British Museum, was the first MGS boy to win an open science scholarship to Balliol. He recounted how, having joined the school in 1865, he had reached the Classical Sixth when family circumstances meant he had to earn a living. Walker encouraged him to stay on, recommended he transfer to science and helped him pay for his studies by assisting in the chemistry lab.

²¹⁴ Coutts-Trotter (1911), pp.132-133. The editorial team of the '*Junior Debater*' (which also included the author and inventor of the cleriehew, Edmund Clerihew Bentley) was largely undistinguished in their school work, but, after Walker had read the publication '*with great interest*', he promoted G.K.Chesterton, though low down in the school, to a position that '*ranked with the eighth class*'.

²¹⁵ *ibid.*, p.119; *The Manchester Guardian* (December 14, 1910); Snowden, H.G. (1911), pp.68-9, *Mr Walker at the Old School*, in Gardiner, R.B., Lupton, J. (eds.) (1911); Nash (1949/1988), pp.63-4. Walker once roared at the 13-year-old Paul Nash, 'You're doing no good here'. Nash left the school soon after.

²¹⁶ Coutts-Trotter (1911), p.118. At Manchester, he taught the highest classical form himself; at St Paul's after the move, the only teaching contact he had with pupils was in the Hall. (see Ch.8, p.280) Mead (1990), p.77. Cholmeley, R.F. *The Pauline*, No.147, pp.104-5. 'we think of the High Master not as the occupant of some dignified position, but as a constantly moving, almost ubiquitous, presence.'

²¹⁷ Coutts-Trotter (1911), p.125.

qualified staff, who respected²¹⁸ his undoubted erudition and his devotion both to the schools he ran and loyalty to their interests.²¹⁹ Though he described himself as an absolute monarch ('I will have no democracy where I rule'),²²⁰ he made no unwelcome attempts to 'micro-manage' and staff appreciated his manner 'of letting them alone',²²¹ not interfering in what was taught or how they taught it.

The public schools have been widely perceived as a mechanism for social filtering, but while Walker was acutely aware of the pitfalls that could await clever boys from impoverished backgrounds,²²² he was no social snob, speaking openly of his own origins. Indeed, one of the most regularly repeated anecdotes told of him was of his encounter with a prospective parent, whose query about the social status of the school was ruthlessly dampened with, 'Madam, so long as your son behaves and his school fees are paid, we shall ask no embarrassing questions about your social status'.²²³ In the 1890s, this attribute was called into question, when he made strenuous efforts to keep boys from elementary schools from gaining direct access to

²¹⁸ Mead (1990), p.90. Not universally, however. His most celebrated teacher, the eccentric Rev. Horace Dixon Elam, commemorated in boys' memories and fictional accounts, was believed to keep in his desk a bottle of medicine 'to be taken before and after interviewing the Man from Manchester'.

²¹⁹ *ibid.*, p.137. At St Paul's, Walker encouraged his staff in their own work, and they produced a significant output. Max O'Rell, who, as Paul Blouet, was a much-liked French teacher, later became famous for his affectionately humorous account of the English, *John Bull and His Island*; Dr. Thomas Rice Holmes wrote both a scholarly work on Caesar and a popular work on the Indian Mutiny; Dr. W.G. Rutherford, an eminent classical scholar and later head of Westminster School, produced the *New Phrynicus* (1881), which became a standard text. The staff also wrote numerous best-selling textbooks. A.M. Cook and W.E.P. Pantin's Latin course of 1885 became a standard work; Robson, E. and Stedall, S. eds. (2009), p.463. *The Oxford Handbook of the History of Mathematics*, Oxford: Oxford University Press. The Senior Mathematics Master Charles Pendlebury's *Arithmetic* (1886), also became a standard textbook, still in print in 1947.

²²⁰ Mead (2004).

²²¹ Coutts-Trotter (1911), p.134. R.F. Cholmeley, quoted in Coutts-Trotter.

²²² *ibid.*, p.128. He would offer tactful suggestions to boys proceeding to Oxford or Cambridge, whose 'uncouthness of speech or any little gaucherie or ignorance of manners ... would be an obstacle or humiliation to them'.

²²³ *ibid.*, p.139; Mumford (1919), p.353, p.333. Mumford also tells the story of Edwin Harrison, the son of a mechanic and a mill girl, whom Walker taught Greek at Owens. Identifying his ability, Walker admitted him to MGS at the age of 19, and from there he went on to Balliol.

St Paul's, but there is every reason to believe his objections were on academic rather than social grounds.

According to Mead,²²⁴ Walker considered that restricting competition for a third of the foundation scholarships to boys from endowed schools where fees were not over £15 or from public elementary schools²²⁵ (as opposed to allowing them to compete for these in 'free and unrestricted competition')²²⁶ was 'the worst possible method of aiding the children of the poor to reach the benefits of a liberal education', since it would artificially lower the standard of St Paul's and demarcate the boys whom it was designed to assist as a separate class.²²⁷

His stance at this point, seems, in fact, markedly different from that taken in Manchester, where a new scheme for MGS, proposed by the trustees in 1874 and approved by the Charity Commissioners in 1877, reserved half the places for pupils from local elementary schools.²²⁸ This must undoubtedly have been proposed with Walker's approval, but may, however, indicate his view about the relative academic status of the two schools, or his belief that in London there were alternative routes up the path of meritocracy.²²⁹

²²⁴ Mead (2004)

²²⁵ Seaton (1911), p.162.

²²⁶ McDonnell (1909), p.422.

²²⁷ Mead (2004).

²²⁸ Watson (2015), pp.53-4.

²²⁹ Seaton (1911), p.165. Indeed, at the time of the dispute, Walker offered to forego a large part of the endowment to fund exhibitions for boys from elementary schools to prepare at 'intermediate' schools or elsewhere for scholarships to St Paul's or other places of 'higher education'.

His political views, though not overtly expressed, were clearly at one with the liberal modernisers who appointed him both at MGS and St Paul's.²³⁰ While in Manchester, he taught evening classes to factory workers at Owens College, and, at St Paul's, secretly paid the fees of poor boys out of his own pocket²³¹ (as well as the salaries of teachers that he could not fund from the foundation);²³² and he was as generous with his time as his money, giving extra tuition to poor boys needing a scholarship.²³³ He always saw his mission as running a day school,²³⁴ and, never looked for a considerably better paid and more prestigious job as the head of a well-resourced boarding school.²³⁵

In Manchester, Walker married the daughter of one of the school's governors,²³⁶ Richard Johnson,²³⁷ a wealthy wire manufacturer, who was a leading figure in the Non-Conformist community and board member of Owens College. On his wife's death, after just two years of marriage, he raised his only child alone, never remarrying. The marriage, however, left him financially independent.²³⁸

²³⁰ *The Manchester Guardian* (December 14th, 1910). In Manchester, as well as teaching evening classes at Owens, he stood up for workers' rights, as attested in a story about an encounter with Charles Beyer. Beyer was in conflict with his men and Walker took a coin out of his own pocket, held it in front of the businessman's eyes and said, 'That's what prevents you from seeing the position of the men.'

²³¹ Coutts-Trotter (1911), p.127.

²³² *ibid.*, p.130.

²³³ *ibid.*, pp.127-8.

²³⁴ Mead (2004). Prior to St Paul's, his other (unsuccessful) job applications (to Charterhouse, in 1863, and King's College School, in 1866) had both been to day schools.

²³⁵ Though the fact that he was not ordained would certainly have handicapped this ambition.

²³⁶ Cholmeley (1912). In 1867, he married Maria, daughter of Richard Johnson, a Liberal and devout Nonconformist.

²³⁷ *Graces Guide to British Industrial History*, [https://www.gracesguide.co.uk/Richard_Johnson_\(1809-1881\)](https://www.gracesguide.co.uk/Richard_Johnson_(1809-1881)) (downloaded 25th April 2018). Johnson's firm, Richard Johnson and Nephew, was the oldest and largest wire manufacturer in Manchester, known throughout the world.

²³⁸ Mead (2004). 'financial independence no doubt set the seal on his fearless and truculent individualism, and, perhaps contributed to his rather unkempt appearance, occasional devastating rudeness and idiosyncratic reserve.'

He remained in adult life, as in childhood, a somewhat solitary figure, and though he was famed for his indulgence in cigars²³⁹ (**FIGURE 17**), he was not ‘clubbable’,²⁴⁰ performing public duties only as these related to the interest of his pupils.²⁴¹ He did not, for example, attend the HMC;²⁴² instead, his energies were devoted to his schools, cajoling, begging, exhorting for the objectives he hoped would make the schools he headed fulfil the high expectations he had of them.

He retired in July 1905, aged 75, and though living just a mile from St Paul’s, never revisited the school in the five years before his death on 13th December, 1910.²⁴³

WALKER’S APPOINTMENT AT ST PAUL’S AND HIS 1878 BRIEF FOR THE DESIGN OF THE NEW SCHOOL

Though St Paul’s had, from its foundation, been a school noted for its scholarship, by the 1870s, it might, in modern terms, be considered to have been ‘coasting’,²⁴⁴ and when a new head was required in 1876,²⁴⁵ Walker was the man brought in to re-energise it. This he began to do virtually from the moment of his appointment.²⁴⁶

Despite his notable achievements at MGS, Walker was, perhaps, not the most obvious candidate for this job. MGS was not then a particularly well-known school,

²³⁹ *Vanity Fair* (1901).

²⁴⁰ *The Times*, December 14, 1910.

²⁴¹ Cholmeley (1912).

²⁴² *Vanity Fair* (1901). According to the satirical sketch, he considered, it ‘too talkative’.

²⁴³ Cholmeley (1912).

²⁴⁴ Mead (1990), pp.61-2. The Clarendon Commission had criticised its admissions policy, staffing, and curriculum.

²⁴⁵ Brown, R.P. (1911), p.21, *The Closing Years of Dr Kynaston* in Gardiner, R.B., Lupton, J. (eds.) (1911).

²⁴⁶ MM, 21st December, 1876. Even before his arrival, he started making suggestions about new directions, when he agreed that the High Master’s house should be ‘employed for the purposes of the school’.

especially in the south,²⁴⁷ and though John Colet's statutes had not specified that the High Master should be in Holy Orders,²⁴⁸ Walker was the first head in over a century not to have been ordained.²⁴⁹ He was certainly selected in preference to seemingly more plausible 'public-school' applicants.²⁵⁰

It seems probable, as Mead suggests,²⁵¹ that Benjamin Jowett would have been a powerful advocate on his behalf. As is clear from Jowett's speech at the opening of MGS's new building in 1870, he was a champion of Walker's work in the north, and, as Master of Balliol, was also one of St Paul's most influential old boys. Whether he played a part or not, however, Walker would, in many respects, have seemed the ideal man to deliver the governors' newly defined objectives.

The product of a leading 'Great School' and garlanded with an outstanding academic record at Oxford, Walker had the requisite scholarly qualifications to fill the headship of a leading public school, while his modernising work at MGS indicated he was sufficiently forward looking to meet the Charity Commissioners' expectations defined in the 1876 scheme. It is certainly clear from the outset, that the governors considered him someone appropriate to oversee a school encompassing a Modern as well as a Classical side. At the time of his appointment, the governors' clerk was directed:

²⁴⁷ Mumford (1919), p.347. When Benjamin Jowett attended the banquet held in honour of the new school buildings in 1871, he showed, according to Mumford, '*a curious lack of knowledge that the school had any important history previous to the coming of Mr Walker*'.

²⁴⁸ Colet, J. (1518). Colet had stipulated: '*a weddid man a single manne or preste that hath no benefice with cure*'.

²⁴⁹ Mead (2004).

²⁵⁰ MM, 27th October, 1876. Walker was chosen from a shortlist of five, which included: Francis Cornish MA, a master at Eton College and later its Vice-Provost; the Rev James Marshall MA; Thomas Page, MA; and the Rev Henry Thompson MA.

²⁵¹ Mead (2004).

to write to Mr Walker that he had been elected High Master... and that in the event of the Governors establishing a single school with a Classical and Modern department under the 84th clause of the scheme Mr Walker will undertake to be the High Master of both departments.²⁵²

At this juncture, the school operated out of the building opened in 1824.²⁵³

Dominated by a single large school room (**FIGURE 18**), this simple structure had been augmented by some additional classrooms²⁵⁴ by Walker's predecessor, Herbert Kynaston,²⁵⁵ who had also introduced teaching in French and Mathematics. Facilities, however, remained basic,²⁵⁶ and science and drawing were not taught.

On Walker's appointment, the High Master's house was immediately converted into further classrooms,²⁵⁷ and, in 1879, when Walker appointed a science master, the attic rooms of the Surmaster's (deputy head's) house were adapted for science teaching.²⁵⁸ By this date, most teaching was taking place in independent classrooms. The schoolroom, while still used for prayers, was given over to the 'Special', where boys were chosen and taught by Walker,²⁵⁹ and, from 1879, to the teaching of art.²⁶⁰

²⁵² MM, 27th October, 1876.

²⁵³ McDonnell (1909), p.390.

²⁵⁴ *ibid.*, p.402. These had been formed from space in the headmaster's house.

²⁵⁵ *ibid.*, p.399. Kynaston, generally considered a weak head, was High Master from 1838-76.

²⁵⁶ Mewburn, C. (1911), p.4, *The Third School*, in Gardiner, R.B., Lupton, J. (eds.) (1911); Whyley, F. (1911), p.15. *Reminiscences of St Paul's under Dr Kynaston's Rule*, in Gardiner, R.B., Lupton, J. (eds.) (1911). Both writers recall the school being lit by candlelight.

²⁵⁷ MM, 21st December, 1876; MM, 18th January, 1877.

²⁵⁸ Dunstan, M.J.R. (1911), p.194, *Early Days of Natural Science*, in Gardiner, R.B., Lupton, J. (eds.) (1911). Malcolm Dunstan, who attended the school from 1877, recalls one attic room acting as lecture room, chemical and physical laboratory. An adjoining bedroom was later taken over as a 'private laboratory'.

²⁵⁹ Mead (1990), p.77.

²⁶⁰ Harris (1911), pp.208-210.

As soon as the location for the new school had been finalised,²⁶¹ the governors requested Walker's brief, and the outline he delivered to them in February 1878 was largely to define the accommodation required in the new building.²⁶² It is, therefore, worth considering this in detail, examining his agenda in the order he read it out.

Walker's first requirement was for an 'ample supply' of classrooms.²⁶³ As has been shown in Chapter 4,²⁶⁴ at the time of the Clarendon Commissioners' report in the 1860s, classroom-based teaching was still relatively new and had by no means been universally adopted in secondary schools. By the late 1870s, however, when Walker presented his case to the governors, it is evident it had become the norm.²⁶⁵

Even so, numbers per classroom (a significant financial consideration in terms of both staffing and building costs) were clearly by no means fixed,²⁶⁶ and here, to support his case, Walker initially called into evidence recent practice at schools he believed the governors would see as comparable. These were: Merchant Taylors', Charterhouse (both originally Clarendon schools), and Dulwich College, all three of which had been rebuilt in the previous decade, the first as a City-based day school, the second as a country boarding school, and the third as a suburban London day school. At these schools, on average, one master was 'allowed for each 20 boys',²⁶⁷ but Walker also suggests the alternative (cheaper) option of 25 boys to one master.

²⁶¹ MM, 19th December, 1877.

²⁶² MM, 21st February, 1878.

²⁶³ *ibid.* Walker calculated the number 'required sufficient for at least 900 boys'.

²⁶⁴ See Ch.4, pp.116-119.

²⁶⁵ MM, 21st February, 1878.

²⁶⁶ Robson (1874/ 1972), pp.161-2. The Revised Code of 1862 stipulated 60 in elementary schools.

²⁶⁷ MM, 21st February, 1878. Walker also gives suggested dimensions of the classrooms (30ft by 20ft). Parkin (1900), p.72, p.74. At Uppingham, Edward Thring argued as early as 1859 that classroom numbers should be between 20-25. Below, there would be insufficient competition, above, and each boy would not receive sufficient attention.

It is clear, however, from his rider, 'a larger number than is assigned elsewhere',²⁶⁸ that he does not believe this figure preferable.

He then outlines the prominent accommodation to be provided for the governors.²⁶⁹ It seems probable that this requirement was diplomatically placed second on Walker's list with the intention of assuaging any disquiet the Mercers may have felt about losing control of the school as it moved away from the City, where they remained based.

Walker's next priority was a room for 'drawing and writing'.²⁷⁰ Here, he stressed that 'in Manchester we gave up for this purpose our best room 80ft by 50ft and never had reason to think of the space as wasted'.²⁷¹ By the late 19th century, drawing had become a pre-requisite for entry into numerous professions, and Walker's emphasis here is indicative of his intention that the school should equip students for careers in medicine, engineering and the civil service, as much as it would train them to become fine artists. It is equally significant in my view that the only amendment the governors made to Walker's brief was to change 'drawing and writing' to 'drawing and art', as 'writing' was a skill primarily required for clerical careers, presumably not the intended outcome of the new school.

The space for scientific instruction was next, and again Walker brought his previous experience to bear. ('More space in proportion to the number of boys under

²⁶⁸ MM, 21st February 21st, 1878.

²⁶⁹ *ibid.* Richards (1968), p.15. The Board Room, a large room in the centre of the building on the ground floor, looking out on to the field, was taken over by Walker soon after the school opened as his study, a function it retained under subsequent heads.

²⁷⁰ MM, 21st February, 1878. For which, he wanted a 'a large room with good light'.

²⁷¹ *ibid.*

instruction is required for the teaching of science than any other subject.’)²⁷² The accommodation he outlined would have been as sophisticated as at any school in England. It included first and foremost two laboratories (one for chemistry, one for physics) with an apparatus room. Chemistry was the better-established discipline, and Walker specifies the size;²⁷³ physics he is less confident about (‘Physical laboratories are now becoming common, but I do not think opinion is agreed as to their proper form and magnitude.’)²⁷⁴ In addition, he hopes to follow ‘many other schools’ in introducing a ‘small museum to the advantage of their science scholars’,²⁷⁵ and in emulating the ‘generally recognised’ usefulness of a lecture theatre.²⁷⁶ Here, Walker clearly envisages a large room (60ft by 45ft) ‘in close proximity to the laboratories’ able to accommodate about half the school.²⁷⁷

It is only after he has given the specifications for the teaching space and official offices that he turns to the matter of a ‘large Hall’ (‘not less than 7000 square feet’), which, it is important to note, he makes clear is: a) expensive; b) highly desirable; c) optional.

A large Hall in which the whole school should daily meet for Prayers would be most desirable. In fact, though nominally vacant at other times, the room would be in continual use. But even if it should serve no other purpose than that of being the place of daily meeting, I should think it worth the large additional expense it will undoubtedly entail.²⁷⁸

²⁷² *ibid.*

²⁷³ *ibid.* 3000 square feet or 90 ft. by 33ft.

²⁷⁴ *ibid.*

²⁷⁵ *ibid.*

²⁷⁶ *ibid.* Many secondary schools had confined their teaching of science largely to lectures.

²⁷⁷ *ibid.* The dimensions are those required for ‘400 to 500 boys’.

²⁷⁸ *ibid.*

What is evident is that, for Walker, the Hall has at this point entirely lost its role as the central schoolroom. He does not, however, seem to attach particular significance to its use for ceremonial purposes, which is notable considering the importance the Hall later took at St Paul's (as in other comparable schools) as a space where the school's history and traditions as well as its academic aims and aspirations could be embodied in its use and decoration. For Walker, some of this function was to be fulfilled in the library (his next requirement), where he suggests a separate room devoted to 'all the literature that relates to the great Pauline'²⁷⁹ (i.e. John Colet).

He then proceeds to outline the needs for the more practical requirements: the dining hall,²⁸⁰ the lavatories and WCs,²⁸¹ and the cloakrooms.²⁸² In the case of the last, Walker demonstrates awareness of recent design developments in elementary schools, citing the 'cookery schools'²⁸³ as precedent.

Finally, he comes to the gymnasium, but clarifies that this is not an addendum ('I have left for the last, that part of the building in which I am most interested').²⁸⁴ For the Clarendon Commissioners, the 'freedom for healthy exercise'²⁸⁵ was one of the paramount virtues of the country boarding school, and Walker, too, states the

²⁷⁹ *ibid.*

²⁸⁰ *ibid.* Walker assumes that only about 250 boys would want to eat at school and recommends a '*well-lighted basement*' for this purpose.

²⁸¹ *ibid.* He wanted the urinals and water closets brought together inside the main school building, presumably for disciplinary reasons, and asks for separate provision for the masters.

²⁸² *ibid.* 'There is always trouble connected with the disposal of boys' books, caps, overcoats, umbrellas, etc.'. 'In many schools this difficulty is met by having Cloak and Box rooms', which 'if the space could be spared' would be desirable.

²⁸³ Seaborne and Lowe (1977), pp.8- 9. The decision to build large elementary schools in London had, from the early 1880s, allowed the introduction of specialist facilities, such as centres for cookery.

²⁸⁴ MM, 21st February, 1878.

²⁸⁵ CC (1864), Vol.1, p.50.

relative disadvantage of day-school pupils ('Day schools occupy an inferior position to boarding schools in no small degree because day schools neglect the physical education of their scholars.')

²⁸⁶ It is important to note, however, that Walker is not arguing for anything approximating 'manly Christianity' or competitive team sports as a means of building 'esprit de corps',²⁸⁷ typical of the boarding public schools. Instead, his standpoint is very much within the Continental mainstream.²⁸⁸ He argues the 'absolute necessity' for the town boy of 'regulated and systematic gymnastics',²⁸⁹ which would take place in a large building 'resembling a covered playground rather than an ordinary gymnasium'. The only competitive sport he mentions is 'the valuable addition' of 'a few fives courts'.

The governors agreed instantly to his proposals, only asking for more information on the number of classrooms at 'other large schools in proportion to the number of pupils',²⁹⁰ which was later delivered.²⁹¹ It was decided at this juncture that 'a classroom should be provided for each Master.'²⁹²

CONCLUSION

²⁸⁶ MM, 21st February, 1878. Pupils at a day school, he points out, are handicapped by '*the arrangement of hours*'.

²⁸⁷ Snowden (1911), p.79. Herbert Snowden comments that 'a very real esprit de corps' was instead created, by 'an atmosphere of proud success' in scholarship and a 'revived consciousness of the great traditions of the school.' Snowden acknowledges this approach might have limitations. 'Its source was mainly intellectual, and there are those among schoolboys whom the intellectual does not stir.'

²⁸⁸ Robson (1874), pp. 244-5, p.262.

²⁸⁹ MM, 21st February, 1878. 'It then, as I venture to hope, will be the case that at St Paul's all the boys are to receive more physical training under competent direction.'

²⁹⁰ *ibid.*

²⁹¹ MM, 10th May, 1878. The schools detailed were: Aldenham, Bedford, Brighton, Charterhouse, Christ's Hospital, Cheltenham, Clifton, Dulwich, Eton, Giggleswick, Haileybury, Harrow, Highgate, King's College School, Liverpool College School, Marlborough College, Mill Hill, Repton, Rossall, Rugby, Sherborne, Shrewsbury, Stonyhurst, Tonbridge, Uppingham, Wakefield, Wellington, Westminster, Winchester.

²⁹² *ibid.*

In this chapter, I established that Walker's education at school and university placed him within a Liberal, progressive movement of education focused on updating and expanding English secondary and university education. His experience of headship at Manchester Grammar School in the north of England immediately prior to his appointment at St Paul's influenced his perception of the role of science and technology in the curriculum, and his extended headship here gave him considerable experience of developing the infrastructure necessary to deliver a classical and scientific education in a single institution. This expertise is likely to have contributed to his appointment at St Paul's, where my research indicates that Walker was given an almost entirely free hand in establishing the internal requirements for the new building, detailing not only the facilities to be included, but the scale of the rooms.

The interest of Walker's brief, however, lies as much in what it does not ask for as what it does. Given historians' widely held view that a Victorian public school was defined by three key attributes (regular attendance at chapel, a disciplinary regime regulated by prefects,²⁹³ and compulsory involvement in competitive team games), I argue that it is of considerable significance that Walker, in redefining one of England's oldest, wealthiest and most renowned public schools, did not ask for the facilities to deliver any of these.

What he appears to have contemplated from the outset was a very different type of school, a metropolitan public day school that addressed the professional

²⁹³ Mead (1990), p.87. At St Paul's, far from governing through prefects, Walker got rid of the existing system of using the entire Eighth Form as monitors. He did, however, appoint a Captain of the School, always the boy at the top of the Classical Eighth.

requirements of the commercial and professional middle class of a nation trading on a world stage. This idea of a school chimed with his personal preferences for a school where religion played a largely peripheral role, where discipline was administered through the head rather than by means of prefects, and where the objective of sport was to improve pupils' physical wellbeing rather than to serve a disciplinary or ideological function. How Walker's brief was to be realised by the architect will be examined in the next chapter.

What does the account of Walker's biography and his brief for the school contribute to the study of history?

Microhistorians consider it a given that 'human agency' is a means of answering the larger questions of history. Taking a biographical approach to the life of Frederick William Walker, High Master of St Paul's, not only enabled me to analyse the perspective of one of the key decision-makers involved in the formation of the new school, but allowed me, in Giovanni Levi's words, to 'reveal factors previously unobserved'.

Walker's life and the various milieux in which he lived and worked in some sense exemplified the movement in education towards an understanding of merit and the rewards it could bring to the outsider. Linking these milieux through the experience of a single individual, I was able to gain considerable insight into why the decisions taken about infrastructure at St Paul's differed significantly from those taken at other of the 'Great Schools'.

CHAPTER 7: THE ARCHITECT ALFRED WATERHOUSE AND THE EVOLUTION OF THE PLAN FOR ST PAUL'S, 1878-1882

INTRODUCTION

On 10th May 1878,¹ less than three months after receiving Frederick William Walker's brief, the governors of St Paul's selected Alfred Waterhouse (**FIGURE 19**) as the architect of the new building. At this point, the 360-year-old school had been housed in three similar buildings on the same site;² all three had been substantial, even lavish, but those responsible for their design were not unduly celebrated.³ Alfred Waterhouse, on the other hand, might be considered to have been the Richard Rogers of his day,⁴ and he was appointed at the height of his career.⁵ In this chapter, I consider the role played by Alfred Waterhouse in shaping the rebuilding of St Paul's, examining the impact of his personal and professional experience on the designs he developed for the new building.

During the period under examination, there was no universally recognised model for secondary-school buildings.⁶ Each school, within the constraints of its original statutes and the schemes prescribed by government-appointed commissioners,

¹ MM, 10th May, 1978.

² See Ch.1, p.19, n.20.

³ Erasmus of Rotterdam (1519), p.27. The architect of Colet's school building is unrecorded, though Erasmus has left a detailed description of the interior, the earliest of any school building; Collins (2004), p.149. Until recently, historians of the school credited Sir Christopher Wren as putatively responsible for the 17th-century rebuild, but, as Helen Collins has established, it was the reputable, but lesser known, Edward Jerman, surveyor to the Mercers, who carried out the design of the post-Fire school; *The Architect*, Jan 30th, 1869, Obituary. George Smith, architect of the third school, was of a similar stature.

⁴ Cunningham and Waterhouse (1992), p.200. In 1887, *BN* invited its readers to name the leading British architect and Waterhouse came top of the poll with 90 per cent of the vote.

⁵ *ibid.*, p.3, p.101. In 1878, he became President of the Manchester Society of Architects and won the Royal Gold Medal of the Royal Institute of British Architects.

⁶ See Ch.4.

could, both in form and style, construct its school buildings entirely as it chose. Therefore, in order to contextualise the decisions taken about the design of St. Paul's, I first provide a summary of Waterhouse's major works, focusing particularly on the educational buildings he was responsible for throughout his lengthy and prolific career, especially his work in higher education in the years preceding and coinciding with his commission for St Paul's. I then briefly explore the architectural decisions being taken at comparable schools, before going on to consider what characteristics made those responsible for the rebuilding of St Paul's conclude that Waterhouse was the most appropriate architect for the job. Finally, I chart the evolution of Waterhouse's plans for St Paul's, detailing how these were refined on the basis of intervention both by the school governors and the Charity Commissioners.

ALFRED WATERHOUSE: THE RICHARDS ROGERS OF THE MID 19TH CENTURY

Background and major works

Alfred Waterhouse, was born into a family of wealthy Quaker cotton brokers in Liverpool in 1830,⁷ an almost exact contemporary of Frederick William Walker. After a strictly Quaker upbringing, when he attended Grove House School, a fashionable Quaker boarding school in Tottenham,⁸ he began an apprenticeship with a leading Manchester architect.⁹ Then, in 1854, he set up his own practice,¹⁰ quickly becoming

⁷ Cunningham and Waterhouse (1992), p.7. Waterhouse was born on 19th August, 1830.

⁸ *ibid.*, p.8. Here, Waterhouse mixed with the sons of influential Quaker families, many of whom were later to become clients. Stewart, W.A.C. (1953), pp.76-7, *Quakers and Education, As Seen in Their Schools in England*, London: The Epworth Press. Grove House, which opened in 1828, was in the first wave of proprietary schools and taught a broad curriculum.

⁹ Cunningham and Waterhouse (1992), p.10. In 1848, he was articled to the Quaker architect Richard Lane.

¹⁰ *ibid.*, p.18.

successful.¹¹ By 1865, already acclaimed in Manchester,¹² he opened a London office,¹³ from which he built up a large practice, becoming the most widely employed architect in Britain,¹⁴ and one of the richest architects of the day.¹⁵ Waterhouse's working life spanned the entire second half of the 19th century and covered the building worlds of London and the North. During this period, as well as becoming President of the Royal Institute of British Architects¹⁶ and a Royal Academician,¹⁷ he was responsible for the design of some of the country's most significant public and private buildings.

Competitions for public buildings began to be formally organised towards the beginning of Victoria's reign and often attracted enormous interest and effort,¹⁸ producing some of the most impressive feats of architectural design.¹⁹ Waterhouse won his first competition at the age of just 29 when, in 1859,²⁰ he triumphed over 100 rivals²¹ with his designs for Manchester Assize Court, which *The Builder* praised as 'one of the remarkable experiences of our time'.²² This established his reputation nationally as a leading exponent of the Gothic Revival.²³

¹¹ *ibid.*, p.22, p.24. His first substantial commission, a mansion for Christopher Bushell, was published in *The Builder*, 15th January, 1859. Much of his early work was won through his Quaker connections.

¹² Archer (ed.) (1985), p.7.

¹³ Cunningham, C. (2004, online 2010) 'Alfred Waterhouse (1830-1905)', *Oxford Dictionary of National Biography*, Oxford: Oxford University Press (downloaded 16.5.2018).

¹⁴ Cunningham and Waterhouse (1992), p.111.

¹⁵ Cunningham (2004/2010). On his death in 1905, probate records reveal he left £215,036. Cunningham & Waterhouse (1992), p.103. By 1878, he could afford to buy a country estate, an almost unheard of purchase for an architect. Pevsner, N. (1972), p.182. *Some Architectural Writers of the 19th Century*, Oxford: Oxford University Press. As a point of comparison, Sir George Gilbert Scott, on his death in 1878, left £130,000.

¹⁶ Cunningham and Waterhouse (1992), p.148.

¹⁷ *ibid.*, p.180. He was elected an Associate of the Royal Academy in 1877, a full Academician in 1885.

¹⁸ Summerson (1970), pp.77-117.

¹⁹ Harper (1983), p.xi.

²⁰ Cunningham and Waterhouse (1992), pp.31-5.

²¹ Eastlake (1872/1975), p.312.

²² *The Builder* (30th April, 1859)

²³ *ibid.* p.312. Charles Eastlake was an influential architectural critic, who became Secretary of the Institute of British Architects in 1866. His *History of the Gothic Revival* (1872) was the first to define the movement. In this,

Soon afterwards, he was approached for another major commission, Strangeways Gaol (1861-9),²⁴ then, in 1866, on the back of his work at the Assize Courts, he was invited to enter the competition for the Law Courts in London, considered the most important new public building of the Victorian era after the Palace of Westminster.²⁵ Though he did not win,²⁶ his design was considered an exemplary example of good planning,²⁷ and a further significant step in his development of 'modern' Gothic.²⁸

The late 1860s were pivotal in his career. In 1868,²⁹ he emerged victorious³⁰ in the competition for Manchester Town Hall (**FIGURE 20**), considered then,³¹ as now, one of his masterpieces,³² and, in the same year,³³ produced his drawings for the Natural History Museum (**FIGURE 21**), his third great public building and first major work in

he included two works by Waterhouse, the Broad Street addition to Balliol and Manchester Assize Court. He described the Assize Court as 'a Mediaeval design, which united considerable architectural merit with unusual advantages in regard to plan and internal arrangements'.

²⁴ Cunningham and Waterhouse (1992), pp.35-6.

²⁵ Summerson (1970), p.77, p.93. Eleven of the country's most distinguished architects were asked to submit designs, including: E.M. Barry, George Gilbert Scott, G.E. Street and William Burges. Waterhouse was one of the two youngest.

²⁶ Cunningham and Waterhouse (1992), p.43. His designed was preferred by the intended 'end users', the Bar Committee, but not by the architectural press.

²⁷ Summerson (1970), p.94, p.97, p.112. Convenience and efficiency were high priorities, as the complex building was to contain 1,304 rooms, including 24 courts, on a restricted site. According to Summerson, Waterhouse provided: 'a brilliantly composed piece of three-dimensional planning'.

²⁸ Crook (1987/9), pp.143-4. Crook defines Waterhouse as 'the ultimate Modern Goth', suggesting that in later years 'he became largely indifferent to style' providing the 'link between High Victorian Gothic and later Victorian Free Style'.

²⁹ Cunningham and Waterhouse (1992), p.58

³⁰ Archer (1985), p.128. In a field of 137 competitors.

³¹ Brothers, A. (1878), p.6. *Manchester as It Is: A Series of Views of Public Buildings in Manchester and Its Vicinity*, Manchester: J.E. Cornish.

³² Goodhart-Rendel (1953/1989), frontispiece caption. Goodhart-Rendel described it 'a classic of the age', For other recent descriptions and commentaries see: Pevsner (1969); Jenkins (1967); Dellheim (1982). It is now Grade-1 Listed, and, in 2012, featured on a series of stamps commemorating British landmarks.

³³ Cunningham and Waterhouse (1992), p.73.

the capital.³⁴ Distinguished by its planning³⁵ and technical modernity,³⁶ it was also to become celebrated as the country's first large-scale building to be entirely faced in terracotta.³⁷

Unlike many of his contemporaries, Waterhouse's involvement with the design and restoration of churches was limited, and he remains known primarily for his large institutional buildings, where his skill as a planner was shown in a multitude of town halls, hospitals,³⁸ clubs³⁹ and commercial buildings, ranging from warehouses and hotels to banks and offices.⁴⁰

Waterhouse was also well known for his domestic work, and built or altered in the region of 90 country houses, largely for the increasingly wealthy upper-middle classes.⁴¹ One of the few houses he designed for the aristocracy was the Duke of Westminster's principal seat, Eaton Hall, the most expensive country house of the age,⁴² but, in the context of this thesis, his most relevant commission was the extensive work he carried out for Lord Selborne at Blackmoor.⁴³

³⁴ *ibid.*, pp.72-3. The design has been included in numerous general works and, more extensively examined in Cruickshank (ed.) (1985); Yanni (1999).

³⁵ Girouard, M. in Cruickshank (1985), Foreword. Mark Girouard comments on Waterhouse's 'genius for planning very large buildings.'; Yanni (1999), p.132.

³⁶ Girouard (1981), p.36. Under its neo-Romanesque skin, the building had an iron framework.

³⁷ Olley and Wilson (1985), p.56. Cunningham and Waterhouse (1992), p.162. Waterhouse was to become the profession's most knowledgeable and enthusiastic protagonist of the use of terracotta, so much so that he was known as 'Mr Terracotta'.

³⁸ Cunningham (2004/2010). Including University College Hospital, London (1894-1903), the first vertically planned hospital in Britain.

³⁹ *ibid.* The National Liberal Club (1884-7) is considered one of his most successful commissions.

⁴⁰ *ibid.* By far his most extensive set of commissions came from the Prudential Assurance Company, for whom he designed 27 buildings between 1877-1904.

⁴¹ Cunningham and Waterhouse (1992), p.87.

⁴² *ibid.*, p.236. It cost nearly £750,000.

⁴³ Cunningham and Waterhouse (1992), See Ch.5., p.164.

Designs for education, Waterhouse's role as an innovator

When Waterhouse was invited to design St Paul's, he claimed to be ignorant of the 'leading schools'.⁴⁴ It is possible this claim was disingenuous,⁴⁵ but what seems more probable is that Waterhouse saw the building of St Paul's as falling into a specific category of secondary school with which he had previously had only limited involvement.

Certainly, his engagement with architecture intended for educational purposes stretches back almost to the start of his career. In the 1860s, he had worked on various elementary school buildings,⁴⁶ including two well-publicised National Schools.⁴⁷ In the 1860s and 70s, he was responsible for various endowed grammar schools, all more substantial than single-room schoolhouses,⁴⁸ and, though his work at the leading boarding schools was limited, he had also designed a cricket pavilion at proprietary school Marlborough College⁴⁹ and carried out work for Shrewsbury School, one of the Clarendon schools.⁵⁰

⁴⁴ MM, 28th June, 1878; 11th October, 1878. 'I should like...to visit some of the leading schools in the country with which I do not happen to be already familiar.' This sentence can be construed as meaning he was only unfamiliar with 'some' of the leading schools, but it is noteworthy that the schools he went on to visit were: Christ's Hospital, Merchant Taylors', City of London and MGS.

⁴⁵ In a man famed for his charm, this is a possible construction.

⁴⁶ Cunningham and Waterhouse (1992), p.210, p.243.

⁴⁷ *The Builder*, October 27th, 1866.

⁴⁸ Cunningham and Waterhouse (1992), pp.245-6, p.244, p.160, p.243. Reading Grammar School, 1871, was one of his earliest combinations of red brick and terracotta (**FIGURE 22**). Containing schoolrooms, a Hall, masters' houses and playing fields, it received extensive coverage in *The Times* (12th September, 1871). In 1873, he designed a Grammar School in Middlesbrough; and, in 1879, Wigan Grammar School (<http://wigangrammarschool.co.uk/School3.htm>, downloaded, 4th April, 2017), which cost in the region of £20,000 and contained a Hall, a Headmaster's house, and five large classrooms.

⁴⁹ Cunningham and Waterhouse (1992) p.243.

⁵⁰ *ibid.*, p.247.

Far more prominent, however, was the work he executed at both Oxford⁵¹ and Cambridge.⁵² In the 1860s and 70s, commissions at England's oldest universities carried a similar prestige to those of major public commissions,⁵³ and the university reforms of the mid-century, which led to a considerable expansion of student numbers,⁵⁴ resulted in widespread building programmes in both towns, in which Waterhouse played a significant role.

From the perspective of his work at St Paul's, however, two commissions are of particular note: his work at Balliol College, Oxford, begun in 1866,⁵⁵ and his work at Girton College, Cambridge. The former not only confirmed his reputation as a significant figure in the Gothic Revival,⁵⁶ but brought him into close and positive association with Benjamin Jowett;⁵⁷ the latter, the country's first purpose-built college for women, demonstrated, as Margaret Vickery has shown, his ability to design an

⁵¹ Cunningham and Waterhouse (1992), pp.63-66. Here, Waterhouse worked at Balliol for about a decade. Between 1866-71, he designed a new Master's Lodge and a range of buildings facing Broad Street, which were amongst his most important commissions, and went on to design a new Hall, convert the old Hall into a library, and design both the college barge and an organ case for the chapel. Elsewhere, he extended Dean and Woodward's designs for the Oxford Union.

⁵² *ibid.*, pp.66-71. His work at Cambridge was more extensive. Here, in 1865, he designed a debating hall for the Cambridge Union Society. This was followed by: a series of new buildings for Gonville and Caius College (1867-76); work for Jesus College (1871-77) and Trinity Hall (1870-73); and extensive work at Pembroke College (1870-75), where he designed a new Master's Lodge, a block of undergraduate rooms, a new Hall and library.

⁵³ Smith (1976), p.108.

⁵⁴ Simon (1960/1966), p.297.

⁵⁵ Cunningham and Waterhouse (1992), p.230. p.64.

⁵⁶ Eastlake (1872/ 1975), p.360. Eastlake commented of Balliol: 'The new buildings for Balliol College, Oxford, ... show that Mr Waterhouse kept up with the stream of advancing taste without losing that individuality of design which every true artist wishes to retain...'

⁵⁷ Abbott, E. and Campbell, L. (1897), pp.100-104. *The Life and Letters of Benjamin Jowett*, Vol.II, London: John Murray. In 1873, due to rapidly increasing numbers, Benjamin Jowett decided to build a new Hall and, as his biographers note: 'the building of the Hall was one of the great interests of his life. He loved to watch the rising walls from his study window, or visit them in his mornings' walks, passing along the scaffolding to examine each detail.' On the completion of the Hall, he wrote to friends vaunting its success: 'Everyone seems to think it a noble building, though Ruskin told me it would be a dull sort of a church.'

entirely new type of educational building,⁵⁸ one that married the architectural conventions of the Oxbridge college with the domestic tradition of the country house. Its innovative quality was recognised at the time, and E.R. Robson, including it in his chapter on Middle Schools just two years after the completion of the first phase, acknowledged that, though Girton fell outside the scope of school education, it marked 'an epoch in the higher education of the sex (i.e. women)'.⁵⁹

Waterhouse's other buildings at Oxford and Cambridge primarily demonstrate his ability to work flexibly in existing environments, but his extensive work at the three nascent university colleges in the north (Manchester,⁶⁰ Leeds⁶¹ and Liverpool⁶²) made him an architect of unusual influence in the evolution of collegiate architecture. (Indeed, he may, without hyperbole, be considered the man responsible for putting the 'redbrick' into 'redbrick university'.)⁶³ These new 'civic' universities were to provide access to higher education to those who had previously been excluded by class, religion or gender.⁶⁴

Here, Waterhouse's first major project was at Owens College in Manchester, where he began work on the new buildings (**FIGURE 23**) in 1868,⁶⁵ two months after the

⁵⁸ Vickery (1999), pp.1-40; Cunningham and Waterhouse (1992), p.70. Cunningham and Waterhouse argue that Girton should be grouped alongside Waterhouse's work at the Northern universities rather than with the Oxbridge colleges, as these works establish new forms rather than supplementing existing ideas.

⁵⁹ Robson (1874/1972), p.239.

⁶⁰ Cunningham and Waterhouse (1992), pp.126-7. i.e. Owen's College.

⁶¹ *ibid.*, p.129. From the mid 1870s, he worked at Yorkshire College, the forerunner of Leeds University.

⁶² *ibid.*, pp.128-9. Waterhouse's work at Liverpool, from 1881, developed into what is probably 'the most extensive group of buildings in his best-known style', i.e. red brick and terracotta.

⁶³ Whyte (2015/ 2016), p.160.

⁶⁴ *ibid.*, p.8.

⁶⁵ Thompson (1886), pp.344-5, p.364; Cunningham and Waterhouse (1992), p.124. Owens had begun in makeshift buildings, which Waterhouse worked on from the 1860s.

foundation stone for Manchester Town Hall had been laid.⁶⁶ From the perspective of this thesis, Waterhouse's involvement with Owens is particularly pertinent in two key respects. Firstly, Frederick William Walker's association with Owens College was also extensive.⁶⁷ Secondly, E. R. Robson explicitly allies Owens with his own vision of secondary-school architecture, stating that it 'is perhaps a typical illustration of what, in their teaching and arrangements, English Secondary Schools might aim to become'.⁶⁸

Owens, as William Whyte has demonstrated, 'was in the vanguard of changes that would affect almost every major city in the country',⁶⁹ but, at the time, there was no English architectural precedent for a civic university. The two university colleges in London (University College, King's College) had set university education on a new academic path in the 1820s,⁷⁰ but the buildings belonging to the London colleges served primarily as lecture theatres.⁷¹ At Owens, the idea of a community which extended beyond the academic was integral to the concept from the outset.⁷²

The building committee at Owens responsible for briefing Waterhouse, however, was by no means in agreement about what this meant in design terms⁷³ and advice and

⁶⁶ Whyte (2015), p.107. As the committee that selected him put it, in Waterhouse, they had found a 'gentleman already well known in Manchester for the ingenuity and convenience of his plans and the elegance of his designs.'

⁶⁷ See Ch.6., p.200.

⁶⁸ Robson (1874/1972), pp.236-7; Cunningham and Waterhouse (1992) p.237. Owens cost £105,000, similar to the cost of St Paul's; Jones (1988), pp.152-54. As noted above, Owens admitted students of school age.

⁶⁹ Whyte (2015/6) p.110. i.e. the foundation of a college that was later to become a university.

⁷⁰ Rothblatt (1988), pp.120-1.

⁷¹ Whyte (2015/2016), p.209.

⁷² *ibid.*

⁷³ Thompson (1886), p.346. Thompson eloquently explains the tricky task Waterhouse faced. 'Some wished for a building of one storey; others for two or three storeys: some advocated internal corridors; to others they were an abomination, and nothing but external staircases and galleries would suffice. Some wished for through, others for cross, lights: some wished the buildings to be placed far back from Oxford Road; others

example were sought from across Britain and the Continent.⁷⁴ Ultimately, Waterhouse was asked to use his discretion,⁷⁵ and he produced a design for the first block which, as at St Paul's a decade or later, was in the form of an E-plan (here, with two wings to the front).⁷⁶ Internally, he provided large classrooms, a large library, and studies for professors to carry out research,⁷⁷ as well as laboratories (**FIGURE 24**), which conformed to the highest European standards.⁷⁸ As Whyte has argued, in furnishing both teachers and taught with their own space and concentrating teaching on a single site, Waterhouse delivered a building which introduced a radical new idea of collegiate life.⁷⁹

An even more immediate link with St Paul's was Waterhouse's design of the Central City and Guilds Institute for the Advancement of Technical Education (**FIGURE 25**), a work he executed simultaneously with his design for the school.⁸⁰ Here the Mercers, and, as has been shown,⁸¹ Lord Selborne, were closely involved. The

advocated a grand front right on to the thoroughfare, future extensions being made by side and back wings. These differences of opinion led to much discussion and some confusion...'

⁷⁴ Whyte (2015/6), p.107.

⁷⁵ Thompson (1886), p.349.

⁷⁶ Cunningham and Waterhouse (1992), p.127.

⁷⁷ Whyte (2015/16), p.109.

⁷⁸ Roscoe, H.E. (1878), *Description of the chemical laboratories at the Owens College, Manchester from the Plans of Alfred Waterhouse*, A.R.A. Manchester: J.E. Cornish; Brothers (1878), p.21; Robson, (1974/1872), p.236. Robson comments that: 'an endeavour has been made to render the chemical laboratory superior to any corresponding department in the schools of Germany, Austria, or Switzerland.' Whyte (2015/16), p.110. Roscoe turned down the invitation to become professor of Chemistry at Oxford because he believed the facilities he possessed at Owens were superior.

⁷⁹ *ibid*, p.109, p.160.

⁸⁰ Cunningham and Waterhouse (1992), pp.255-6, p.125. Waterhouse produced his designs in the first months of 1881 and the building opened six months after St Paul's. It was illustrated in *The Builder* on 5th January, 1884. The two buildings shared striking similarities, though St Paul's was designed to accommodate 1000, the City and Guilds Institute only 200 students. Both buildings, however, contained a large number of classrooms, stacked in a pile of three floors, with a main staircase in the centre and a single straight corridor on each floor. The external composition in each case was symmetrical with an imposing centrepiece topped by a turret carrying a clock and two end pavilions. Both buildings were constructed of red brick and terracotta, but the style of the City and Guilds Institute was a variation on the Romanesque revival, while St Paul's was 15th-century Gothic.

⁸¹ See Ch.5, pp.162-3.

provision of a technical college for draughtsmen and technicians was one of the original ideas of 'Albertopolis',⁸² and, as an educational institution, the City and Guilds of London Institution (which was incorporated by Royal Charter in 1907 to form the engineering department of Imperial College and Technology) was hugely significant,⁸³ containing the largest massing of science laboratories built up to this date.⁸⁴ The funding for the building was never intended to be lavish,⁸⁵ but, when turning to Waterhouse for its design, what the patrons were looking for was his expertise in planning (the original report stated that: 'regard should be had rather to what is wanted on the inside than what will look well from the outside').⁸⁶

It is important to note, too, when considering the brief at St Paul's that, by the time Waterhouse was chosen as the school's architect, his work at the Natural History Museum, the northern university colleges, and the City and Guilds Institute made him the most experienced architect of up-to-date scientific facilities in England. As Professor Sir Henry Roscoe, one of England's most celebrated chemists, put it after Waterhouse's death:

⁸² Sheppard, F.H.W. (1975), pp.74-96. *South Kensington and the Science and Art Department*, in *Survey of London: Volume 38*, South Kensington Museums Area, London: Athlone Press. Following the advice of Prince Albert, the surplus from the Great Exhibition of 1851 had been used to buy 87 acres of land to provide a permanent home for institutions which would achieve the central aim of bringing science and art to bear on industry.

⁸³ Whitworth (1985), pp.1-4. The need for more and better technical education was widely acknowledged from the mid-century, with constant comparisons made between England and the growing number of polytechnics found on the Continent. The main objectives of the City and Guilds of London Institute for the Advancement of Technical Education, established in 1878, were: to set up and conduct a system of qualifying examinations in technical subjects; to establish in London a 'Central Institution' which would offer a new and more advanced level of technical education. Most of the leading scientists of the day, including Huxley and Roscoe, were consulted about its design and equipment. The Institute had stringent entrance exams and the first full-time three-year courses, which were at least of the quality of London University's matriculation, began in 1885. Students were usually 16 or 17 on entry.

⁸⁴ *ibid*, p.80.

⁸⁵ Cunningham and Waterhouse (1992), pp.124-5. The final cost was £88,120.

⁸⁶ Sheppard, F.H.W. (ed.), (1975), p.238, *Survey of London, Vol.38, The Museum Area of South Kensington and Westminster*: London: The Athlone Press. From the Livery Company's *Report on Technical Education*, 1878.

I must bear testimony to the abilities of my late distinguished friend as an architect of buildings for scientific purposes. He at once understood the special requirements of a laboratory and, as a result, those which he built in Manchester, Liverpool and Leeds are each a model of what such buildings should be. In my own case, those which I designed for Owens College were copied far and wide not only in this country, but abroad.⁸⁷

Waterhouse and style: the marriage of form and function

Contemporary and later commentators have considered Waterhouse to be one of the leading exponents of 'the Gothic Revival',⁸⁸ a design movement, which came to prominence in the 1840s. Its pioneers and pundits undoubtedly 'inspired his early allegiances',⁸⁹ but Waterhouse's interests were never entirely confined to the perfect reconstruction of the historic, and a more useful description of him is that he was a 'modern Goth', someone who developed the principles of Gothic, successfully re-interpreting them for a new age.⁹⁰ His 'free, or even cavalier, attitude to style'⁹¹ was widely acknowledged by contemporary critics (and by himself).⁹²

⁸⁷ Roscoe, H. (1906), p.110, *Life and Experience*, Macmillan & Co. Ltd.

⁸⁸ Eastlake (1872/1972), p.360; Clark (1928/1964), p.104. Goodhart-Rendel (1953/ 1989), p.157. Goodhart-Rendel, a key figure in the 20th-century revival of interest in Victorian architecture, said of him; 'Among the practitioners of this logical domestic Gothic, Waterhouse surpassed all others in ability...'

⁸⁹ Smith (1976), pp. 92-121.

⁹⁰ Girouard (1981), pp.34-35. Mark Girouard asserts that for Waterhouse, Gothic: 'meant not only accepting but welcoming new types of plan, new materials and new methods of construction. His Gothic or Romanesque... was securely anchored to the 19th century by his open use of new techniques, especially iron or steel construction and terracotta facing. ... '

⁹¹ Cunningham and Waterhouse (1992), p.200.

⁹² Waterhouse, A. (1865), *Papers Read at the RIBA 1864/5*, pp.165-76. After the completion of Manchester Town Hall, Waterhouse, in an address to the RIBA, gave an insight into his approach: 'the moulding and details are 13th century in their general character, but whenever I thought that the particular object in view could not be best attained by strict adherence to precedent, I took the liberty of departing from it.'

In the early 20th century, there was a peculiarly intense revulsion of taste against Victorian architecture⁹³ and, in this reaction, Alfred Waterhouse was notably damned,⁹⁴ but even in his heyday his buildings received something of a mixed reception. William Morris described the Manchester Assize Courts as ‘a dreary pretentious heap’,⁹⁵ while, in the late 1870s, the architect Alfred Brothers considered Owens College ‘remarkable more for the excellence and convenience of its internal arrangements, than any architectural pretensions externally’.⁹⁶

Even at the Town Hall⁹⁷ and the Law Courts, his work tended to garner praise for its practical rather than artistic merit. Later, his search for a style was acknowledged with misgiving,⁹⁸ and, by the end of his life, judgement had hardened against him (one critic in the 1890s described his buildings as: ‘wholly devoid of charm’).⁹⁹ For almost half a century after his death, architectural historians and critics excluded or actively disliked his work.¹⁰⁰ More recently, his extensive oeuvre, while still considered variable, is deemed to have included work of the highest quality. The

⁹³ Summerson (1970), pp.1-18.

⁹⁴ Cunningham and Waterhouse (1992), p.199. Goodhart-Rendel (1953/1989), pp.156-7. As Harry Goodhart-Rendel, a former President of the RIBA, noted in 1953: ‘Alfred Waterhouse is an architect whose stock at the moment is down at bottom.’ It was not a view the writer shared, describing Waterhouse’s work as ‘definite, logical and brave’ and recognising his ‘large grasp of planning’ and ‘mastery of architectural organisation’. Summerson, J., rev. Mitchell, R. (2004/2011) ‘*Rendel, Harry Stuart Goodhart- (1887-1959), architect*’, *Oxford Dictionary of National Biography*, Oxford; Oxford University Press. Goodhart-Rendel was Slade Professor of Fine Art at Oxford, 1933-36, Director of the Architectural Association, 1924-5, President of the RIBA, 1937-9.

⁹⁵ Morris. W., (ed.) Henderson, P. (1950), *The Letters of William Morris to his Family and Friends*, London: Longmans Green & Co.

⁹⁶ Brothers (1878), p.21.

⁹⁷ Cunningham and Waterhouse (1992), p.56. Waterhouse’s competition entry was considered the best for general arrangement, convenience, practical considerations and cost, but not for its architectural merit.

⁹⁸ *The Builder*, 16th May, 1874. ‘Mr Waterhouse appears... to have settled on his path and we have little doubt that the buildings he will leave... will always command approval and commendation, even when they fail to rouse enthusiasm.’

⁹⁹ *British Architect*, 30th October, 1896.

¹⁰⁰ Hitchcock, H-R. (1958/ 1969), p.263. The influential critic Henry-Russell Hitchcock said of him, ‘at best Waterhouse had a rather heavy hand.’

Natural History Museum¹⁰¹ and Manchester Town Hall¹⁰² in particular have attracted attention as some of the finest examples of Victorian architecture.

‘Style’ and the choice of styles featured prominently in the architectural debates of the mid 19th century, but style was often seen as a superficial feature, rather like putting on a striking tie. For Waterhouse himself, style was important, but only as the outcome of a logical process of design and construction:

Your buildings must faithfully adapt themselves to those for whom you build; must embody their requirements, and what they want, in the most direct way possible. Do not let the conventionalities of style interfere with this. Find out exactly what is wanted; never think of the elevation of your building, till you have ascertained this and embodied in it your plans as fully and perfectly as you can. Afterwards clothe the building so planned in the most fitting dress you can devise... As you have in the first instance been solicitous that your building should adapt itself in every way to the needs and conditions of the people who are to use it, so now strive that every detail of the dress in which you clothe it shall help to make its purpose clear.¹⁰³

Nonetheless, there seems little doubt that those who employed him hoped for (and often felt they had been gratified with) buildings that worked aesthetically as well as practically.

¹⁰¹ Girouard (1981); Olley and Wilson (1985).

¹⁰² Jenkins (1967); Archer (1985); Pevsner (1969); Dellheim (1982).

¹⁰³ Waterhouse, A. (1889), *RIBA 1889 Presidential Address* to students reported in *The Builder*, 2nd February, 1889.

Joseph Mordaunt Crook has argued that in the Victorian period both architect and patron were in thrall to two pervasive socio-aesthetic categories: 'propriety'¹⁰⁴ and 'association'.¹⁰⁵ It seems reasonable to claim that, stylistically, Waterhouse effectively satisfied both criteria, and his mixture of practicality with traditional forms was well suited to new institutions like Girton College and Owens College, which needed to announce their status immediately. I would argue, however, that it was equally valuable for older institutions such as St Paul's, desirous of demonstrating that they were setting out in a bold new direction.

The impact of patronage, professionalism and personal qualities in Waterhouse's career

Some of Waterhouse's most important commissions were won through public competition, and, the most industrious of architects, he was never averse to the vast effort such competitions entailed.¹⁰⁶ Competition, however, was by no means the only, or indeed the most common, means of choosing an architect at this time.¹⁰⁷ In public works, as Frank Jenkins has shown, the most important development in patronage was the rise of the building committee,¹⁰⁸ and those selected to design larger buildings were generally chosen by collective clients - committees, local councils and boards of governors - 'representing the views of industry, commerce and the professions'.¹⁰⁹

¹⁰⁴ Crook (1987/1989), p.132. Style as an expression of status as well as of purpose.

¹⁰⁵ *ibid.* That is, architecture that embodied memory.

¹⁰⁶ Cunningham and Waterhouse (1992), p.43. His immaculate presentations were remarkable for their effort and originality. At the Law Courts, for example, he used the latest technology to provide bound sets of photographs of his designs to every member of the commission.

¹⁰⁷ Girouard (1971/1973), p.12.

¹⁰⁸ Jenkins (1961), p.188.

¹⁰⁹ *ibid.*

Waterhouse had both the professional and personal characteristics to succeed in this environment, and contemporaries would have recognised the truth of Mark Girouard's assessment that Waterhouse was one of a relatively small group of architects, who not only 'found out what would suit their clients and set out to provide it', delivering buildings on time on and on budget, but also produced 'creative works of art which caught the imagination of contemporaries or posterity, or were admired and imitated around the world.'¹¹⁰

At a time, when architecture was only gradually developing into a profession,¹¹¹ Waterhouse was one of its most notable 'experts',¹¹² and, during the battle which raged amongst architects in the last quarter of the century between 'art'¹¹³ and 'professionalism',¹¹⁴ he showed limited sympathy with the distinction. As he declared in his Presidential address to the RIBA in 1888: 'We have heard something lately of the conflicting terms 'professional man' and 'artist' as applied to the architect. Now, in my opinion, the true architect is both.'¹¹⁵

Certainly, his own office was run with exemplary efficiency. He retained his senior draughtsman for years, employed his own quantity surveyor and reliable clerk of works, and made a careful selection of contractors and suppliers.¹¹⁶ He had also fully

¹¹⁰ Girouard (1985), Foreword.

¹¹¹ Saint (1985), p.61. The Institute of British Architects was founded in 1834 with the intention of securing 'uniformity and respectability of practice in the profession'. It received its Royal Charter in 1837, and by 1840 had 159 members. Summerson, J. (1973), pp.18-19, *The London Building World of the 1860s*, London: Thames and Hudson. By 1861, this number had risen to 209, including most of the familiar mid-Victorian names. Members could only be elected after seven years in practice.

¹¹² Cunningham and Waterhouse (1992), p.149. Waterhouse as President of the RIBA was a firm advocate of training, coming down on the 'registration' side of the heated debate.

¹¹³ Saint (1985), p.66. The idea of art in building as the special province of the architect became more conscious and widespread between about 1820 and 1850.

¹¹⁴ *ibid.* p.63.

¹¹⁵ Waterhouse, A. (1888), *Presidential Address to the RIBA*, reported in *The Builder*, 10th November, 1888.

¹¹⁶ Cunningham and Waterhouse (1992), pp.145-7.

mastered the commercial necessity for cost control and ran a meticulous accounts department.¹¹⁷ Waterhouse's personal qualities contributed equally to his success. As he repeatedly demonstrated, he possessed all the 'tact, acumen and ... persuasive polish'¹¹⁸ required to manage strong personalities, divergent opinions, and committees packed with the great and the good. His charm was celebrated,¹¹⁹ his patience legendary¹²⁰ and these were, no doubt, the attributes that encouraged his clients to return to him repeatedly.

The upper echelons of society during the Victorian period were highly political, and many architects had a relatively cohesive body of clients.¹²¹ In the case of Waterhouse, his clients throughout his career largely corresponded with the parliamentary Liberal party¹²² (and those who shared Liberal political sympathies).¹²³ His wide network of Quaker patrons was also naturally sympathetic to the causes of social and educational reform.¹²⁴ Though, he was well connected with the professional and commercial middle class, he lacked an entrée into (or interest in) the world of aristocratic patronage, and the Duke of Westminster was his only significant client in this milieu.

Why the governors of St Paul's selected Waterhouse

¹¹⁷ *ibid.* p.141.

¹¹⁸ Jenkins (1961), p.188.

¹¹⁹ Cunningham and Waterhouse (1992), p.147. It was said his smile was worth £10,000 a year to him.

¹²⁰ Whyte (2015/2016), p.108.

¹²¹ Girouard (1971/1973), pp.12-13.

¹²² Cunningham and Waterhouse (1992), p.24.

¹²³ Crook (1999), p.255. One of Waterhouse's most significant later works, The National Liberal Club, was associated with 'provincial radicals'.

¹²⁴ Dandelion, P. (2008), *The Quakers*, Oxford: Oxford University Press.

In the context of this thesis, Waterhouse had a number of specific attributes that made him a logical choice for the governors at St Paul's. Firstly, and most significantly, was his talent as a planner.¹²⁵ St Paul's was a new type of building, requiring a host of new functions to be brought together in an efficient and elegant way. It was widely acknowledged by contemporaries that, even where there was limited precedent, Waterhouse's skill lay in his ability to provide buildings which worked well for those using them, linking logic and convenience with spatial effect. (As Eastlake commented of the Assize Courts in 1872, for example, 'Time has shown that Waterhouse's plan ... is admirably adapted for its purpose.')¹²⁶

Secondly, Waterhouse was celebrated for his work as an architect of the most advanced scientific buildings, and this thesis demonstrates that the new St Paul's building was intended to place an unprecedented emphasis on the 'science' side and put the school in the forefront of middle-class education in this regard.

Thirdly, Waterhouse had made his name as a 'civic' architect. The 19th century saw the development and display of considerable civic pride in towns throughout the country, often expressed in town halls, but equally in its schools, universities and libraries, and, while St Paul's can be classified as a 'public school', its identity, both before and after its removal from the City of London, was that of a 'London' school.¹²⁷ Waterhouse's work at Manchester Town Hall, at Owens College, and at

¹²⁵ Summerson (1970), p.112. Summerson describes him as 'the most ingenious and masterly of Victorian planners'.

¹²⁶ Eastlake (1872/1975), p.313.

¹²⁷ CC (1864), Ch.5, p.198. 'We agree ... that Dean Colet must be held to have designed a special benefit for the inhabitants of the metropolis, native or foreign.'

the university colleges of Liverpool and Leeds, all demonstrated that he was at ease offering citizens in the great age of the city what they were looking for.¹²⁸

Equally, however, Waterhouse was an architect who stood confidently on the national stage, and his work at the Natural History Museum, as Summerson contends, 'represents, as no other London buildings do or did, the power of expression of mid-Victorian and late-Victorian architecture at the level of national monumentality'.¹²⁹ It was, no doubt, this quality, as much as any other, that attracted his clients at St Paul's in their quest to create a 'national' public school.

ARCHITECTURAL DECISIONS TAKEN AT OTHER RELEVANT SCHOOLS

'Why Waterhouse?', however, is not the same question as 'Why a well-known architect?' or, indeed, 'Why an architect at all?'. These last two questions would have been far more widely appreciated at the time the governors of St Paul's chose to ignore them.

By the mid 19th century, architects were employed on a wide range of new building types, from railway stations to music halls, but as late as the 1890s, only about ten per cent of new buildings were, in fact, architect designed,¹³⁰ and there remained

¹²⁸ Summerson, J. (1973), p.326, *London, the Artefact*, in Dyos, H.J. and Wolff, M. (1973), *The Victorian City, Images and Realities*, Vol.1, London and Boston: Routledge & Kegan Paul. Summerson argues that Waterhouse and his contemporaries, Philip Webb, Norman Shaw and J.J. Stevenson, 'powerfully changed the face of London' creating the city as it was understood in the 20th century.

¹²⁹ *ibid.*, p.328.

¹³⁰ Shaw, R.N. and Jackson, T.G. (1892), *Architecture: A Profession or an Art?*, London: John Murray. This was a maximum figure. Even Queen Victoria and Prince Albert used the builder Thomas Cubitt rather than a professional architect to design Osborne House.

considerable scepticism about the cost-benefit ratio,¹³¹ emphatically so if the building, as at St Paul's, was financed out of a public endowment in the process of redistribution to maximise public benefit.¹³²

Nonetheless, in the 30 years after the Elementary Education Act, when elementary school buildings came to be seen as important buildings in their own right,¹³³ dynamic school boards across the country employed architects who could do justice to these new monuments to civic pride.¹³⁴ (In London, for example, E.R. Robson was a prominent figure in the architectural community, like Waterhouse a member of the rarefied RIBA,¹³⁵ and, like Waterhouse, happy to vaunt his school designs at the Royal Academy.)¹³⁶ Schools for the middle classes could hardly be seen to be lagging behind.

In this milieu, the well-endowed grammar schools were often in the forefront of architectural display, and the choice of a well-established architect would emphasise the significance of a new endeavour. In Exeter, for example, the new grammar school which opened in 1878, was designed by William Butterfield,¹³⁷ the architect responsible for Keble College, Oxford, as well as extensive work at Rugby; while

¹³¹ Jenkins (1961), pp.192-3. An anonymous author wrote in 1880, 'Modern professionalism is an organised contrivance to impress the public with the notion that "professors", a self-constituted class, have a mysterious claim for pay immensely greater than the simple workman's wages.'

¹³² Summerson (1973b), p.23. The conditions of the competition for the Poplar and Stepney Sick Asylum, for instance, specified that designs should possess 'no architectural pretensions whatsoever'.

¹³³ *ibid.*, p.4.

¹³⁴ Seaborne and Lowe (1977), pp.9-10.

¹³⁵ Whyte (2006). Robson was elected an associate of the Royal Institute of British Architects in 1860, a fellow in 1864.

¹³⁶ Girouard, M. (1971), '*The Queen Anne style of Architecture*', *The Listener*, LXXXV, pp.504-6. Robson held an exhibition of board-school designs at the Royal Academy in 1873.

¹³⁷ Seaborne and Lowe (1977), p.48.

Whitgift School, rebuilt in 1871, employed Arthur Blomfield, later architect of the Bank of England and the Royal College of Music.¹³⁸

Building, too, became far more complex over the course of the century, and architects were in a powerful position to act as interpreters of the myriad of new building regulations and co-ordinators of the raft of new services required to install the latest technical developments in heating, lighting, drainage and ventilation in larger buildings.¹³⁹

After about 1870, there were a growing number of architects whose careers were largely dedicated to school design,¹⁴⁰ and, where local boards and endowed grammar schools did not directly appoint their own architects, they often held competitions for new buildings, which received widespread coverage in the local and specialist press,¹⁴¹ stimulating an interest in school architecture both within and beyond the profession.

Employing an architect with a well-established reputation had long been the practice in the wealthier foundations, which, in the first half of the century, built a number of imposing school buildings. Following in Rugby's footsteps,¹⁴² for example, Christ's Hospital, which rebuilt its two City schools in the 1820s, employed John Shaw, a

¹³⁸ *ibid.*, p.50.

¹³⁹ Saint (1983/1985), p.66, p.68.

¹⁴⁰ *ibid.*, p.17. E.R. Robson was among the first.

¹⁴¹ *ibid.*, p.17.

¹⁴² See Ch.6, p.184.

well-known country-house architect,¹⁴³ while King Edward's School Birmingham was rebuilt in 1832 to designs by Charles (later Sir Charles) Barry.¹⁴⁴

Beyond the leading endowed foundations, a number of new schools with more radical educational briefs were in the vanguard of architectural planning. In 1825, Mill Hill, for example, commissioned a building from Sir William Tite,¹⁴⁵ where teaching was delivered in separate classrooms;¹⁴⁶ while City of London School, opened in 1837 to act as a 'Great High School' for London,¹⁴⁷ was housed from the start in a bespoke building by J.B. Bunning,¹⁴⁸ where its progressive curriculum was delivered in designated classrooms and a horse-shoe-shaped lecture theatre.¹⁴⁹

According to Waterhouse's own testimony, the schools that directly influenced his decisions at St Paul's were: Merchant Taylors' School, City of London School, MGS and Christ's Hospital School.¹⁵⁰ Two of these - MGS and City of London - were in the process of significant architectural change. The other two, while comparable as 'City' schools, must largely have been consulted for curricular rather than architectural direction, since Merchant Taylors' had taken over the old Charterhouse School building on the latter's relocation in the early 1870s and only partially rebuilt it on a

¹⁴³ Peach, A. (2004) 'Shaw, John (1776–1832)', *Oxford Dictionary of National Biography*, Oxford: Oxford University Press.

¹⁴⁴ Port, M.H. (2004, online 2008, downloaded 2nd May, 2018), 'Barry, Sir Charles (1795–1860)', *Oxford Dictionary of National Biography*, Oxford: Oxford University Press. Barry, who had already designed the Manchester Institution and the Travellers Club in Pall Mall, went on to glory at the Houses of Parliament, where he worked, as at Birmingham, with A.W.N. Pugin.

¹⁴⁵ Seaborne (1971), p.166.

¹⁴⁶ Seaborne (1975), p.183.

¹⁴⁷ Douglas-Smith (1937/1965), p.49, p.70.

¹⁴⁸ Seaborne (1970), p.183. Bunning later designed Holloway Prison, the Coal Exchange and Billingsgate Market.

¹⁴⁹ *ibid.*, p.78, p.83.

¹⁵⁰ *MM*, 11th October, 1878.

relatively modest scale,¹⁵¹ while the very wealthy foundation of Christ's Hospital remained in its 1820s building until its move to Surrey in the 1890s.¹⁵²

The approach at City of London provides the most obvious parallel with St Paul's and equally the most striking contrast. Its neo-Gothic building, though barely 50 years old, was by the 1870s suffering from overcrowding, poor ventilation, inadequate classroom capacity, and no outdoor space.¹⁵³ These vexations were addressed by its dynamic headmaster Dr Edwin Abbott,¹⁵⁴ who, in 1875, began a systematic campaign for a move.¹⁵⁵

In November 1879, a site on the Victoria Embankment in the City of London was finally decided upon and a competition held for the design,¹⁵⁶ with the required accommodation, as at St Paul's, outlined by the head.¹⁵⁷ The winning entry (**FIGURES 26 AND 27**) was by Davis and Emanuel, a moderately successful London firm,¹⁵⁸ who offered an imposing building in a style that BN described as 'French Renaissance of a modern type'¹⁵⁹ (and which, Pevsner, subsequently and less kindly, described as 'rather like a permanent exhibition palace.')¹⁶⁰ Distinguished on the outside by shafts of polished granite and an extravagant display of sculpture,

¹⁵¹ *MS 34310: 'Removal to Charterhouse Square'- illustrations.*

¹⁵² Seaborne and Lowe (1977), p.43.

¹⁵³ Douglas-Smith (1937/1965), p.216.

¹⁵⁴ Hinde (1995b), p.46. Head from 1865-1889.

¹⁵⁵ Douglas-Smith (1937/1965), pp.214-5.

¹⁵⁶ Hinde (1995b), p.57. It elicited 53 submissions, some in a classical style, others in Gothic.

¹⁵⁷ Douglas-Smith (1937/1965), p.217. A report was submitted by Abbott on February 1878, at virtually the same moment Walker was making his suggestions for St. Paul's.

¹⁵⁸ <http://archiseek.com/tag/davis-emanuel/> (downloaded 15.8.2018). Their other commissions included West London Synagogue and Southsea Baths and Assembly Rooms.

¹⁵⁹ *BN*, 22nd August, 1879. The projected cost at that point was £31,000.

¹⁶⁰ Pevsner, N. and Nairn, I., rev. Cherry, B. (1957/1973), p.319. *The Buildings of England, The Cities of London and Westminster*, Harmondsworth: Penguin Books.

internally its most magnificent feature was its Great Hall.¹⁶¹ A series of classrooms were accommodated on a long wing which ran back from the main building.¹⁶² The school had a dining hall,¹⁶³ a large basement playground,¹⁶⁴ a laboratory, a cloakroom, a small outside playground (Of this, The City Press commented that the school had been: 'Mindful that the education of the playground is one of the peculiar advantages of English public schools, which tends to mature the manliness of character distinctive of British boys), and a gymnasium,¹⁶⁵ but no playing fields.¹⁶⁶ The eventual cost was £200,000 – double that of St Paul's - about equally divided between the building and the prestigious and costly Embankment site.

Science was taught at both Merchant Taylors¹⁶⁷ and City,¹⁶⁸ but though Merchant Taylors' established a Modern side ('having in view the great demand which exists in the present day for education in Modern Languages, Science and Commerce after boys have attained a certain proficiency in the Classics'),¹⁶⁹ Abbott dragged his feet, leaving the task to his successor on his retirement in 1889.¹⁷⁰

It is relevant to this thesis that no architectural reference was made by Waterhouse to two schools which might have seemed logical to consider: Charterhouse, which

¹⁶¹ Hinde (1995b), Illustrated pp.62-3.

¹⁶² *ibid.*, p.61. The City Press complimented the School Committee for 'very properly' making them an example of the most advanced theory in modern classroom planning' with each boy given a lock-up desk.

¹⁶³ Douglas-Smith (1937/1965), p.247. Next to the covered playground.

¹⁶⁴ Hinde (1995b), p.61.

¹⁶⁵ *ibid.*, p.61.

¹⁶⁶ *ibid.*, p.62.

¹⁶⁷ Draper (1962), pp.184-5. In 1872, the School Committee had voted in favour of introducing science and provision was made for a lecture theatre in the new school, but, the subject was taught only by lectures. There was no laboratory until 1891.

¹⁶⁸ Douglas-Smith (1937/65), p.271. Abbott introduced the teaching of natural science throughout the school, and the new school contained a lecture theatre, where experiments in chemistry and physics were demonstrated. There was also a well-equipped, but small, laboratory, reserved for the 'special'.

¹⁶⁹ Draper (1962), p.182.

¹⁷⁰ Hinde (1995), p.65.

had vacated its 16th-century City site in 1872 to form a country boarding school very much in the public-school tradition,¹⁷¹ and Dulwich College, which had been rebuilt at such lavish expense only ten years earlier, incorporating many of the elements which were to feature at St Paul's.¹⁷²

WATERHOUSE'S DESIGNS FOR ST PAUL'S: THE EVOLUTION OF THE PLAN, 1878-1882

There is no record of how Waterhouse came to be on the shortlist of distinguished architects considered for the design of St Paul's,¹⁷³ but, as suggested elsewhere, the most plausible explanation is his long-term association with Roundell Palmer (and, equally probably, his association with Benjamin Jowett). All that is evident from the minutes of 10th May, 1878,¹⁷⁴ is that a ballot was held among the 17 governors present, and Waterhouse was selected. There is no indication that Walker played any role in this decision.

A quarter of a century after Waterhouse's appointment, the architect Felix Clay, writing about secondary-school buildings in the wake of the 1902 Education Act,¹⁷⁵ outlined the accommodation he believed was required for a large contemporary boys' secondary school. His summary is confident. First and foremost were the

¹⁷¹ Haig Brown (1879), p.179.

¹⁷² Douglas-Smith, p.216. City did reference Dulwich.

¹⁷³ Cunningham and Waterhouse (1992), p.126. Other architects under consideration were Sir George Gilbert Scott and E.M. Barry. Both enjoyed considerable stature. Edward Barry, then Professor of Architecture at the Royal Academy, had been responsible for the Royal Opera House and the completion of his father's work at the Houses of Parliament. Gilbert Scott, who died in 1878, had designed the Albert Memorial, the Foreign and Commonwealth Office, and the main building of Glasgow University, as well as the Vaughan Library at Harrow.

¹⁷⁴ MM, 10th May, 1878.

¹⁷⁵ Clay (1902/1906), p.7. Even at this juncture, as Clay comments: 'their planning is greatly complicated by the great diversity of methods and systems.'

classrooms (one for ‘every class in the school’)¹⁷⁶ and (‘as a general rule’) ‘a large hall or schoolroom not used for teaching’.¹⁷⁷ He followed these fundamentals with a further 40-point checklist,¹⁷⁸ which included: a chemical laboratory; a physical laboratory; a museum; a drawing school (for mechanical drawing); a studio (for models); two libraries; a sixth-form room; a headmaster’s room; an assistant masters’ common room; a committee or board room; a dining room; a gymnasium; a covered playground; fives courts; tennis courts and a playing field.¹⁷⁹

When Waterhouse was commissioned to design St Paul’s, this extensive list was by no means a given (as we have seen from the governors’ initial comments to Walker),¹⁸⁰ and it was the school Waterhouse designed for St Paul’s, orchestrating a multitude of new requirements in a single structure, that played a significant role in creating a template for 20th-century secondary-school buildings.¹⁸¹

On his appointment, the governors sent Waterhouse a plan of the land¹⁸² alongside a copy of Walker’s specifications and asked him to report ‘on the style in which he would propose that the new buildings should be erected’.¹⁸³ Both the question and the response are telling. The governors clearly felt that one of the primary reasons they had hired a leading architect was for his ‘style’. For Waterhouse, on the other

¹⁷⁶ *ibid.*, p.37.

¹⁷⁷ *ibid.* This space was to be used to gather the whole school together ‘*when desirable*’ or for examinations, and was generally used for morning prayers.

¹⁷⁸ *ibid.*, p.15. This is an optional list only (‘It is not suggested that all these rooms are absolutely necessary.’)

¹⁷⁹ *ibid.*, p.37.

¹⁸⁰ See Ch.6, p.177.

¹⁸¹ *ibid.*, p.171.

¹⁸² MM, 10TH May, 1878.

¹⁸³ *ibid.*

hand, as he made clear to them, the first priority was not style, but function, and the decision whether to design the school as one building or as a range of buildings.¹⁸⁴

By the late 1870s, there was considerable precedent, at least in London, for substantial elementary schools accommodating large numbers of pupils over several floors in a single building. The choice to make these schools multi-storeyed, however, derived largely from the difficulty and cost of acquiring large sites in London,¹⁸⁵ and these schools were invariably planned with the limited facilities considered appropriate for elementary education.¹⁸⁶

As far as secondary education was concerned, the leading Clarendon schools (Eton, Harrow, Winchester, Rugby), while boasting a wide range of facilities, had generally developed piecemeal, housing new functions in separate accommodation.¹⁸⁷ In contrast, the teaching space at the recently built (or in the process of being built) London secondary day schools (City of London¹⁸⁸ and Dulwich College¹⁸⁹) had been designed as a coherent whole, as it had been in recent boarding schools (such as

¹⁸⁴ MM, 28th June, 1878. 'The point which would first engage my serious consideration is whether to recommend to the Committee to adopt a scheme for placing the whole of the accommodation required within one block of buildings or to divide the accommodation amongst a group of buildings more or less distinct and separated from each other. Until I have myself formed a definite opinion upon this main principle of arrangement, I could hardly give a recommendation as to the exact style of architecture to be adopted.'

¹⁸⁵ Robson (1874), pp.291-350. Some London Board Schools could accommodate up to 1500 pupils. McClure, S. (1970/1990), p.33, *London: Allen Lane, The Penguin Press*.

¹⁸⁶ *ibid*. The accommodation consisted exclusively of classrooms, playgrounds, lavatories, and, occasionally, a room for the teachers.

¹⁸⁷ *The Builder*, February 26th, 1876. Eton, for example, added an independent science building, with two laboratories and a workshop in a self-contained neo-Gothic structure in the 1870s.

¹⁸⁸ Hinde (1995b), pp.57-62.

¹⁸⁹ Blanch (1877), pp.23-5.

Charterhouse)¹⁹⁰. None of these schools, however, entirely integrated its modern curriculum.¹⁹¹

As has been shown,¹⁹² in the mid 19th century, foreign example, particularly that of Germany, was considered the best model for the development of English secondary-school buildings and, in *School Architecture*, E.R. Robson provides extensive illustrations of recently constructed German Gymnasia.¹⁹³ These buildings were all imposing, multi-storeyed structures accommodating an extensive range of facilities. It must be born in mind, however, that German secondary education remained subdivided according to ultimate outcome, with those studying a classical curriculum taught in Gymnasia,¹⁹⁴ and those destined for a future in science or technology provided with a specialist education in a separate type of school (Realschule).¹⁹⁵ At St. Paul's, the Modern (or, rather, 'Science') and Classical sides were to become fully integrated and given relatively equal weight academically¹⁹⁶ and architecturally.

At the outset, as noted above, Waterhouse explored relevant examples elsewhere, visiting various schools recommended by Walker.¹⁹⁷ He then drew up his initial plans, which his clerk, Mr. Cooper, presented to the governors, alongside a written

¹⁹⁰ Haig Brown (1879), p.177. The new building consisted of a large schoolroom, six classrooms, a governors' room, masters' common room, library and chapel. Port, M.H. (2004), '*Hardwick, Philip (1792-1870)*', *Oxford Dictionary of National Biography*, Oxford: Oxford University Press. The architect, Philip Hardwick, also designed the great hall of Euston Station and various City banks.

¹⁹¹ Blanch (1877), p.31. Dulwich had extensive provision for the study of science, but 'Instruction was given in these subjects at such times as not to interfere with the general course of study.'

¹⁹² See Ch.4., p.114.

¹⁹³ Robson (1874/1972), pp.87-146.

¹⁹⁴ *ibid.*, p.105.

¹⁹⁵ *ibid.*

¹⁹⁶ Mead (1990), p.83. Only relatively, however. For Walker, winning Classical scholarships to Oxford and Cambridge remained the pre-eminent purpose of the school.

¹⁹⁷ MM, 11th October, 1878. Waterhouse visited Christ's Hospital, Merchant Taylors' and City of London with Walker, MGS alone, where he met the chair of governors and architects of the new buildings 'which are being constructed to a large extent in accordance with the views of your High Master'.

submission from Waterhouse.¹⁹⁸ As Waterhouse makes explicit, his intention was to embody Walker's report 'as literally as I possibly could... (for nothing that I saw in any of the schools which Mr Walker and myself visited together nor anything which has occurred in the working out of the plans has induced one to think lightly of any of the suggestions therein contained.)'¹⁹⁹

The 'central-hall plan'²⁰⁰ was to become widely adopted in secondary-school buildings in the early part of the 20th century,²⁰¹ and Waterhouse's first plan for St Paul's was designed with a central hall²⁰² surrounded by 44 classrooms.²⁰³ This plan, as he states, derived from discussions with the head, whose views on its benefits were shared by the headmaster of City of London.²⁰⁴ At this juncture, Waterhouse envisaged the Modern Side being compartmentalised in its own wing under its own head.²⁰⁵

It was only once these arrangements had been clarified that Waterhouse addressed the question of style.²⁰⁶ As mentioned above,²⁰⁷ Waterhouse was a talented artist, and the watercolour he produced in 1880 illustrating the planned building must surely

¹⁹⁸ MM, 22nd November, 1878.

¹⁹⁹ *ibid.*

²⁰⁰ Ch.4, p.127.

²⁰¹ Clay (1902/1906), p.147. Clay, for example, illustrates its use at Colet 'House' (sic, in fact Colet Court), the prep school associated with St Paul's.

²⁰² MM, 22nd November, 1878. 'You will observe that that the plan is arranged so that the High Master should be as it were in the very centre of the building and have his eye as much as possible on everything and everybody.'

²⁰³ MM, 11th October, 1878. This plan allowed for '1000 scholars'.

²⁰⁴ *ibid.* 'In our interview with Mr Abbott of the City of London School, I was much struck with the fact that his views very closely agreed with those of Mr Walker as to the way in which the buildings should be grouped together – that is to say that all the classrooms should open as much as possible on to the Central Hall and should be superimposed one storey above another and approached by galleries around the hall itself so that the doors at any rate of the classrooms should be under the eye of the principal.'

²⁰⁵ *ibid.*

²⁰⁶ *ibid.*, 22nd November, 1878.

²⁰⁷ See Ch.2, p.49.

have confirmed for the governors they had made a wise decision. The image he presented²⁰⁸ - of an idyllic sun-dappled scene of boys in cricketing whites and blazers before an imposingly collegiate building²⁰⁹ - could easily have served as the frontispiece of one of the schoolboy stories then so popular. He made clear from the outset his intended choice of materials - 'redbrick with terracotta dressings, possibly red also' - which he considered 'would assist to the buildings externally that sedate and scholastic appearance which ought to be their characteristic.'²¹⁰

Before this vision was to become reality, Waterhouse's reputation for patient accommodation was to be fully tested. Firstly, the governors requested him to redesign the building bringing it nearer to the Hammersmith Road, thus allowing as much unoccupied ground as possible to the south for playing fields.²¹¹ **(FIGURE 28)** His next, more serious, obstacle, was the Charity Commissioners, who were to decide that the accommodation was too generous.²¹² Despite modifications Waterhouse made in the light of his first contact with the Charity Commissioner's architect,²¹³ this continued to be the case, and the correspondence between the

²⁰⁸ *RIBA Drawings Collection*, Victoria and Albert Museum, T546/WATA [82] (1-4, 16-17); PA1911/WATA [82] (15;18-28).

²⁰⁹ MM, 28th June, 1878. These materials were also used at Owens College and the City and Guilds Institute.

²¹⁰ MM, 28th June, 1878.

²¹¹ *ibid.*, 31st January, 1879.

²¹² *ibid.* Waterhouse suggested 'an unofficial interview with the Charity Commissioners with the object of ascertaining whether they would be likely to approve of his plans'. MM, May 8th, 1879. After several 'interviews', Waterhouse reported that he had 'at length' obtained approval from the Charity Commission's architect 'if some of the Class Rooms were for the present omitted'.

²¹³ MM, 8th May, 1879, 23rd May 23rd, 1879. Waterhouse proposed omitting 'the Class Rooms at the end of the two wings south of the Great Hall' and started on a 'fresh arrangement' placing the Hall, library, kitchens and art schools to the west, and the science lecture rooms and laboratories in a block to the east. 'By this, I think it will be possible to secure a compact arrangement.' This plan was then modified to give greater prominence to the chemistry lab, put the chemistry and physics lab on the same floor, and remove the side entrance, 'Mr Walker considering it important that the boys should go in and out through one entrance only.'

governors and the Charity Commissioner throws light on the battleground, which largely revolved around cost.²¹⁴

While St Paul's was, undoubtedly, considered a special case,²¹⁵ and, therefore, permitted a building budget significantly greater than other endowed grammar schools,²¹⁶ the Charity Commissioners still declared that Waterhouse's first plan was large enough to provide accommodation for 1500 rather than 1000 boys. Though Waterhouse's clerk 'further explained the plans',²¹⁷ Sir Seymour Fitzgerald,²¹⁸ Chair of the Commission, firmly insisted the governors 'take the plans back and modify or reduce them'.²¹⁹

²¹⁴ *ibid.*, 20th November, 1879. The letter from the Charity Commission (dated 6th August, but reported to the governors in November) states: 'The commissioners collect from the report that the accommodation which it is suggested should be provided will probably be found to be considerably in excess of that which would be required to carry out the scheme which contemplates the establishment of a school for about 1000 boys. The commissioners understand from what passed in conference with yourself at this office, that the estimated cost of the contemplated works amounts to no less a sum than £100,000. They will be glad before expressing any opinion upon the case to be fully informed whether such sum includes, in addition to the cost of the building, that of enclosing and forming the ground, roads, etc., of supplying furniture, school fitting, apparatus, etc., and the commissions which will be payable to the architect of the governors.' *ibid.*, 11th November, 1879. Though the figure was eventually agreed, the Commissioners 'felt it to be their duty to obtain an assurance from the governors that the limit of £116,000 will not be exceeded, or, if exceeded, that the excess will be provided from other sources than the funds of the foundation'.

²¹⁵ *ibid.*, 20th November, 1879. The Chief Commissioner stated that the commission 'did not wish to exercise an irksome or unfair control over the plans' and were 'very anxious to work together ... so that a convenient building and one worth the name of St Paul's might be erected'.

²¹⁶ MM, 20th November, 1879; 8th May, 1879. It is clear the status of St Paul's as a public school remained a sensitive topic, particularly when the Charity Commissioners suggested changing its name to 'High School', and a letter was submitted to the Commissioners, which made the case for not pursuing this path to local integration. 'The committee would venture to remind your Lordships that St Paul's was included in the Public Schools Commission of 1861, and included in the Public Schools Act, 1864, and would have been included in the Act of 1868, but for the accidental circumstance that when the bill was before Parliament, litigation was pending between the Attorney General and the Mercers' Company ...(and) trust that your Lordships will be of the opinion that the case of St Paul's School is distinguished from all others likely to come before your consideration... and that no precedent will be created should your Lordships comply with the request of the Committee that the name of the School shall be retained as St Paul's School.' Robson (1874), pp.291-350. The cost of even the largest London elementary schools in the 1870s did not exceed £10,000.

²¹⁷ MM, 20th November, 1879.

²¹⁸ Chichester, H.M., rev. Matthew, H.C.G., (2004), '*Fitzgerald, Sir William Robert Seymour Vesey (1816/18-1885)*', *Oxford Dictionary of National Biography*, Oxford: Oxford University Press. A Conservative MP and former governor of Bombay.

²¹⁹ MM, 20th November, 1879.

This request resulted in significant alterations, and the next set of plans were 'very materially modified', with Waterhouse suggesting that 'the large Hall, some of the rooms devoted to Science... and the Lecture Room be altogether dispensed with'.²²⁰

'Beginning then on a fresh basis' and 'taking the size of the rooms which you suggested instead of those set forth in the High Master's report (which, of course, dictated the size and to, a certain extent, the disposition of our previous schemes)',²²¹ Waterhouse produced a plan reducing the overall scale of the building by 25 per cent,²²² which the School Committee felt was 'more in accordance with the requirements of the school, and the cost now brought within reasonable limits'.²²³

It is interesting, which of the modifications were prioritised, and Waterhouse initially suggested removing the Hall altogether, reverting no doubt to Walker's view 'that this large additional expense' could be optional. This suggestion, however, was overturned by the governors, who re-instated it (leaving the dimensions to be 'determined hereafter').²²⁴ It seems clear that by this point an impressive Hall had become a critical 'status' space for a public school.

In this radically revised scheme, Waterhouse initially attempted to organise the classrooms²²⁵ on either side of a spinal corridor (very much in keeping with contemporary German plans), but rejected this arrangement on the grounds that it

²²⁰ *ibid.*, 19th December, 1879.

²²¹ *ibid.*, 30th January, 1880.

²²² *ibid.*, 33 per cent if the swimming bath was omitted.

²²³ *ibid.*, 19th December, 1879. The plans were presented at a meeting of the School Committee held at Mercers' Hall.

²²⁴ *ibid.*, 29th January, 1880.

²²⁵ *ibid.*, 30th January, 1880. At this point, the classrooms were intended to accommodate 30-40 boys, i.e. to reduce the space, the number of boys per classroom was increased.

did not provide sufficient light or ventilation to the centre of the building, and also precluded the potential for further expansion.²²⁶ Instead, he again designed 'the commencement of wings' which could be prolonged 'to any extent in the future', perhaps indicating his recognition that the revised plans could not comfortably accommodate the 1000 boys envisaged.

The new plan allowed for a 'Great Lecture Hall', located in the centre front of the second floor (which it seems was intended to take on some of the function of the Central Hall)²²⁷, a large library,²²⁸ a large dining hall,²²⁹ seven fives courts²³⁰ and lockers for every boy distributed along the corridors 'in the neighbourhood of the classrooms'.²³¹

Waterhouse was celebrated for the practical efficiency of his plans and the way these were carefully adapted to the requirements of the end users, and here the deployment of light was a critical concern. School buildings were, of course, affected by specific considerations related to teaching. Waterhouse carefully explains how he has designed the classrooms with the direction of light in mind. ('It is worthy of remark that the light always comes in on the boys' left-hand side, neither teacher nor pupil in any case received the light in the face.') ²³² As an artist, he was fully aware, too, that the art room required 'adequate and steady northern light even to the further

²²⁶ MM, 30th January, 1880.

²²⁷ *ibid.* The large lecture theatre could be joined with a smaller lecture hall to accommodate 868 (virtually the entire school) and contained ten entrances.

²²⁸ *ibid.* With space for 13,500 books.

²²⁹ *ibid.* Able to seat 500 boys 'in comfort'.

²³⁰ *ibid.*

²³¹ *ibid.*

²³² *ibid.* Bailey (undated) p.27. In subsequent years, Cyril Bailey was not the only Pauline to complain of the cold, north-facing classrooms which 'hardly during the whole day got a ray of sun – I think the fetish of north light then held sway...'

extremity of the room',²³³ and generally more light than other rooms. No doubt one of the reasons for its final position on the first floor, where the studio could be made 'very high on the window side (18ft)'.²³⁴

'After considerable discussion', ²³⁵ it was resolved by the governors that this plan (numbered 4), with the suggested modifications, be adopted. Waterhouse, as elsewhere, had managed to adapt efficiently to a fluid brief, and provide a coherent design, which, ultimately, satisfied all the decision makers' requirements.

CONCLUSION

In this chapter, I have established that Alfred Waterhouse was at the time of his appointment at St Paul's one of England's most illustrious architects, whose talents were highlighted on the national stage in a series of monuments which brought him widespread public acclaim. His work was largely associated with the Gothic Revival, the Liberal party and modernising tendencies in education and social policy.

By the time of his appointment, he was professionally well known to Lord Selborne and Benjamin Jowett, both influential figures at St Paul's, and, while various other notable architects were initially considered for the job, it seems probable that these former patrons played a pivotal role in his selection. Their testimony would have provided evidence of his professionalism, willingness to work to budgetary

²³³ MM, 29^h January, 1880.

²³⁴ *ibid.* The classrooms were only 14ft high.

²³⁵ *ibid.*

constraints, and capacity to produce designs that married practical efficiency with aesthetic appeal.

I argue, too, that at the time of his appointment, Waterhouse had an exceptionally strong record of designing innovative educational buildings. In particular, his work at Owens College in Manchester and Girton College, Cambridge, were recognised by influential contemporary commentators as convincing departures, and these would have indicated to the governors Waterhouse's capacity to orchestrate an elaborate range of new educational functions, uniting flexibility and efficiency. Notably, too, in light of the governors' decision to introduce a 'Science' side at St Paul's, Waterhouse was then considered the country's foremost designer of scientific facilities.

My research shows that the governors did not have a specific design agenda when outlining the brief, but selected Waterhouse as an architect who could be trusted to produce an appropriately 'scholastic' tour de force. Characteristically, he proved himself willing to address their complex requirements and adapt to budgetary and other constraints, while ultimately producing designs that satisfied both aesthetically and practically. In doing so, as will be argued in the final chapter, he played a highly influential role in defining a new type of secondary school.

What does the account of the architect Alfred Waterhouse and the evolution of the plan for the school contribute to the study of history?

This thesis was specifically concerned to establish the role played by the architect in determining the final outcome of this building in consultation with other decision-

makers. In this case, it found that the appointment of Alfred Waterhouse, at the time one of England's most illustrious architects, enabled the governors to promote the status of the school and to benefit from deploying his extensive professional expertise in devising imaginative solutions to what were essentially new problems. The microhistory of the rebuild of the 19th-century school helps throw light on the decisions made by the governors of St Paul's in successive rebuilds, and on the relevance of employing leading architects on its school buildings today.

CHAPTER 8: THE OUTCOME OF THE REBUILD, THE WAY THE BUILDING OPERATED 1884-1905

INTRODUCTION

In this chapter, I consider the completed building, looking at the way it was used and experienced and how this relates to the original brief. In doing so, I examine both the extent to which the building allowed the school to deliver an expanded curriculum and how far the new building embodied the values the school hoped to project. I also explore how far it set a precedent for a new idea of secondary education.

Here, I initially take a traditional architectural historical approach looking at the elevation and plan as a work of design, before going on to provide an analysis of individual features (the Assembly Hall; the science laboratories; the art department; the sports facilities; the libraries; the classrooms; the dining hall; the interior decoration; the corridors and other general facilities) to establish how far these were significant departures, not only from the St Paul's School building of 1824, but from other contemporary secondary schools. Finally, I explore the extent to which the St Paul's building designed by Alfred Waterhouse acted as a model for later secondary schools.

THE SIGNIFICANCE OF THE BUILDING AS A WORK OF ARCHITECTURE, CONTEMPORARY AND LATER COMMENT

The new building was officially opened on 23rd July, 1884.¹ Characteristically of the period, the launch was carried out with considerable fanfare, and the governors, staff, parents and visiting dignitaries arriving fresh from the old school house on its

¹ *The Opening Ceremony* (1911), p.86, in Gardiner, R.B., Lupton, J. (eds.) (1911).

noisy City site, would, no doubt, have been powerfully struck by the school's reincarnation as a palatial edifice in a peaceful, semi-rural setting.

At that point, visitors (and soon after 211 boys)² entered an imposing three-storey building of plum-coloured brick and deep pink terracotta,³ which dominated its surroundings with little in the way of softening greenery.⁴ E-shaped in plan, its 350ft northern front faced on to the then little-travelled high road (**FIGURE 29**), and its position, set well back from the road, gave full play to its imposing 15th-century Gothic façade. The elevation, in an 'educational' style similar to the one Waterhouse employed at Owens College, was animated by the rhythmic arrangement of the windows, a central gable with a clock,⁵ a large fleche and gables ornamented with arcading.⁶ The enclosing walls, surmounted with ornamental railings, added a park-like dignity. (**FIGURE 30**)

The southern façade (**FIGURE 31**), with its bold central block and projecting wings fronting onto a ten-acre field,⁷ would have been equally striking, while, in the north-east corner, the spacious High Master's villa, connected to the school⁸ by an open-arcaded cloister, presented a suitably dignified residence for the man who was to lead the school into a dynamic new era.

² Coutts-Trotter (1911), p.102.

³ Cunningham and Waterhouse (1992), p.126.

⁴ Richards (1968), p.11.

⁵ Cunningham and Waterhouse (1992), p.126. This feature also appeared in other of Waterhouse's educational buildings, including: Girton College, Cambridge; Pembroke College, Cambridge; City and Guilds Institute: and Liverpool University.

⁶ *ibid.*

⁷ *BN*, August 1st, 1884, p.192.

⁸⁸ From the foundation, the High Master's House had been adjoining the school.

From the modest central entrance in the north façade (**FIGURE 32**), two staircases led up to the higher floors, while corridors ran east and west throughout the length of the building on all three floors, giving access to the large Assembly Hall,⁹ located on the eastern end of the ground floor, and 24 classrooms¹⁰ subdivided between the ground and first floor.¹¹ The High Master's study guarded one side of the main entrance,¹² while the upper two floors contained an array of bespoke facilities, including the substantial art department¹³ and large library¹⁴ on the first floor, and extensive science laboratories, lecture theatre and dining hall on the top floor.¹⁵ Though the on-site facilities for exercise were a great improvement on those offered at the City site, these were initially confined to the playing fields, fives courts and an underground playground.¹⁶ A gymnasium and swimming pool were not added till several years later.¹⁷

Due partly to the renown of its architect and partly to the status of the school, the new building attracted considerable attention in the specialist press well before completion (with *The Builder* running four pages about it in August 1882, including full-page illustrations of the plans and elevations, **FIGURES 33-4**).¹⁸ At this juncture,

⁹ Bailey, G. (1911), p.96. 80 ft. long by 40ft. wide by 50ft. high (to its open timbered roof). Bailey states that 'it occupies a rather unusual position' at the south-east end of the corridor.

¹⁰ Clay (1902/1906), Pl.119-121.

¹¹ *ibid.*, p.95.

¹² Richards (1968), p.15.

¹³ Waterhouse, A. *Plans of 1882*.

¹⁴ *ibid.*

¹⁵ *ibid.*

¹⁶ MM, 16th July, 1879.

¹⁷ Richards (1968), p.6. The gym and covered fives courts were added in 1890; the swimming bath in 1899.

¹⁸ *The Builder*, August 26th, 1882, pp.279-83.

the magazine referred to it as 'this important building', suggesting that it would, in time, become 'the chief ornament' of 'a neighbourhood being rapidly improved'.¹⁹

The Builder was particularly impressed by the 'Great Hall' ('a noble apartment'), where 'all the scholars can be assembled at any time, and which is provided with a gallery for friends',²⁰ by the 'cricket ground' ('which will be one of the finest in the metropolis'),²¹ and by 'the large and small theatres'²² ('so arranged that the partition between them may upon short notice be readily removed and display one grand theatre').²³ For the rest, they describe the facilities without critique, though it is relevant which features they chose to focus on.²⁴

BN reported the opening of the school in 1884 in one paragraph with no illustration,²⁵ detailing the cost of the site and the build²⁶ and again noting the architect. Here, the description was factual rather than descriptive, but aspects of the facilities not highlighted previously include the 'northern light' of the classrooms,²⁷ the two masters' common rooms,²⁸ the covered playground and workshops. Significantly, the

¹⁹ *ibid.*

²⁰ *ibid.*

²¹ *ibid.*

²² *ibid.* It is significant, as will be shown below, that the magazine highlighted the lecture theatre rather than the laboratories. Most science instruction in schools up to this point had been delivered by lecture rather than practical work.

²³ Richards (1965), p.19. Flexibility of space, then as now, was a priority.

²⁴ *ibid.* p.283. As well as identifying the architect by name, they comment on the layout of the school and the arrangement of the classrooms, and mention the board room, the art 'school', the library, the sanitary offices ('kept separate from the main building'), the dining hall ('occupying nearly an entire floor'), and the physical and chemistry laboratories.

²⁵ *BN*, August 1st, 1884, p.192.

²⁶ *ibid.*

²⁷ Robson (1974/1982), pp.223-224; Burke (2005), p.137. The issue of northern light was explored in Robson and schools built during the last decades of the 19th century were designed to take advantage of north light.

²⁸ Some of the earliest in a day school.

'ten acres' ²⁹ of grounds behind the school are described not as playing fields, but as a 'garden' 'turfed in the centre for cricket, football, tennis and similar games'.³⁰

At the opening ceremony, the buildings came in for considerable praise. In his speech, Lord Selborne, once again Lord Chancellor, referred to his surroundings (in whose creation, he had, of course, played so large a part) as 'these magnificent buildings',³¹ which, as he expanded, were to facilitate: 'that enlarged usefulness which could not otherwise have been achieved'.³² Benjamin Jowett, speaking later, referred to 'the noble building in which they were assembled'.³³

In the context of an opening ceremony, these paeans may have been unsurprising, but both the school governors and Frederick William Walker must have felt satisfied the building that had taken them such pains was regarded as an authoritative example of the best contemporary architecture. Though the Gothic Revival was by then in decline,³⁴ Waterhouse's chosen style would not have appeared outmoded (particularly as the Law Courts, completed just two years earlier, were perceived as a high point of the movement),³⁵ and his distinctive choice of materials, in a period

²⁹ McDonnell (1909), p.430. McDonnell gives 11 acres.

³⁰ From this, it seems *BN* did not see compulsory games as an essential component of the curriculum.

³¹ *Anon* (1911), p.91. The use of the word 'magnificent' – an adjective generally deployed in the context of palaces and large public buildings – seems relevant. While hyperbole might be expected at such a ceremony, used here, by a man accustomed to weighing his words carefully, it seems to reflect the status the governors hoped for.

³² *ibid.* pp.88-92. Selborne's speech is reported in full. In it, he makes explicit the expansion of the curriculum to include a modern side. 'We have added to our old curriculum so as to include not only mathematical but also physical science, which enters so largely into modern civilisation. With this we combine instruction in modern languages, so that a pupil may be furnished with the elements of all kinds of knowledge necessary for the discipline or cultivation of his mind and for his introduction to the work of his future life. All these things could not have been done without the changes that have taken place.'

³³ *ibid.* p.92. Again, a term indicative of high status.

³⁴ *BN*, XXIX (1875), p.166. 'Pure Gothicism was the presiding taste a few years ago, but it certainly is not paramount at present.' Olsen, D.J. (1976), p.76., *The Growth of Victorian London*, London: B.T. Batsford. 'Queen Anne', the style adopted at the London School Board schools, was by then in the ascendant.

³⁵ *BN*, XLIV (1883), p.1.

dominated by redbrick³⁶ and terracotta,³⁷ placed the school very much in the forefront of architectural fashion.³⁸

On the whole, the architectural merit of St Paul's continued to attract positive comment long after it opened. In 1911, the architect Gervase Bailey, an old boy of the school, wrote of the building that the 'E-shaped plan ... gives a singular impression of lightness and grace'.³⁹ Less partisan later criticism was generally equally kind. Goodhart-Rendel, for example, writing in the 1950s, may have deprecated Waterhouse's choice of materials,⁴⁰ but found 'its grouping and silhouette ... magnificent';⁴¹ while in the 1960s, on the brink of St Paul's move to yet another site, the journalist and academic Terence Bendixson commented: 'The large-windowed, north-facing classrooms of St Paul's are good evidence of his (Waterhouse's) skill.... The Trustees of St Paul's will have to look carefully for an architect if their new buildings are to be comparably bold in appearance and planning.'⁴² More recently, Cunningham and Waterhouse, in their 1992 monograph of the architect, considered it: 'a remarkably complete essay in modern mechanical Gothic'.⁴³ Only Sir Nikolaus Pevsner, that great champion of modernism,⁴⁴ carped,

³⁶ Olsen (1976), p.76. Redbrick dominated in both commercial and residential buildings.

³⁷ *BN* LXI (1891), p.497. *BN* found terracotta superseding 'not only the softer kinds of stone for exterior work, but in some instances iron and marble'. It cited Waterhouse's work at both the Natural History Museum and St Paul's as examples.

³⁸ Richards (1968), p.11. Though enemies of Waterhouse said that he arrived at his next engagement 'with his hands still red from St Paul's School', the architect's work here contributed to establishing its prevalence.

³⁹ Bailey, G. (1911), p.94.

⁴⁰ Goodhart-Rendel (1953/1989), p.158. Writing at a time when the antagonism to Victorian architecture was still widespread, he comments: 'scarlet brick and terracotta... still too much like a piece of raw meat to be pleasant to most people...'

⁴¹ *ibid.*

⁴² Bendixson, T. (26th June, 1964), p.17, 'Moving St. Paul's', *The Spectator*.

⁴³ Cunningham and Waterhouse (1992), p.126.

⁴⁴ Harrison, B. (2004), 'Pevsner, Sir Nikolaus Bernhard Leon (1902-1983)', *Oxford Dictionary of National Biography*, Oxford: Oxford University Press.

remarking more cruelly,⁴⁵ though not necessarily less accurately, that its style was: 'Prim early Gothic, terribly like a North German Gymnasium'.⁴⁶

THE SIGNIFICANCE OF THE PLAN

Few contemporary or later critics, however, commented on the internal arrangements, and it was left to the architect Felix Clay in his specialist work on school building design of 1902⁴⁷ to both praise and condemn them. Clay provides full illustrations of the plans, and focuses on very different aspects of the building to the architectural press of the 1880s. He lays stress on 'the chemical laboratory' ('a very fine room'),⁴⁸ the classrooms ('large and excellently lit')⁴⁹ and the dining room and kitchen ('particularly worth notice for the convenience of their arrangement').⁵⁰ A firm advocate of the central-hall system, Clay is less happy about the plan overall ('rather suggestive of the arrangement of a German gymnasium'),⁵¹ which he feels 'would probably serve better for a school organised on Continental lines than for an English School, where it is customary to collect the school once or twice every day in the central hall'.⁵² Nonetheless, it is Clay's extensive coverage of the school two decades after its completion, at a time when its architect's reputation had very much

⁴⁵ Pevsner (1952/ 1974), p.177. Pevsner continued 'As in all Waterhouse's buildings there appears an odd inability to age gracefully.'

⁴⁶ Harrison (2004). Educated in Germany, Pevsner was no doubt more struck by these possible antecedents.

⁴⁷ Clay (1902/1906), pp.171-4, Pl. 119-121. Its inclusion in this volume is testimony to its significance, as Clay includes only 11 English secondary schools for boys. He also includes the plans for City of London (Plate 112-115, pp.168-9).

⁴⁸ *ibid.*, p.171.

⁴⁹ *Ibid.*, p.174.

⁵⁰ *ibid.*, p.171.

⁵¹ *ibid.*, p.174

⁵² *ibid* p.174, p.171.

declined,⁵³ that clearly indicates the building's significant role in the development of 20th-century secondary-school design.

It is to this question I now turn, examining elements of the design, which were later to become widespread.

THE CHIEF COMPONENT ELEMENTS, THEIR FORM AND FUNCTION

The Assembly Hall (FIGURE 35/6)

As has been shown,⁵⁴ the school Hall was a room in transition, and, as is evident from Walker's initial submission⁵⁵ and Waterhouse's third scheme,⁵⁶ at the time St Paul's was designed, a Hall was generally considered a desirable status symbol rather than an essential requirement.

Largely due to the Charity Commissioner's intervention,⁵⁷ the Hall eventually built at St Paul's was not planned along 'central' lines, and its ultimate location, at the end of a long corridor on the ground floor, meant it ceased to play the oversight role originally envisaged by Walker.⁵⁸ It continued, however, to perform three further purposes, serving as: a religious space; a ceremonial space; and a teaching space.

⁵³ Cunningham and Waterhouse (1992), pp.199-200. It is perhaps significant that Clay does not name Waterhouse as the architect of the school. The drawing, however, were signed.

⁵⁴ See Ch.4, pp.119-124.

⁵⁵ See Ch.6, p.218-219.

⁵⁶ See Ch.7, p.256.

⁵⁷ *ibid.*

⁵⁸ See Ch.7, p.253, n.205.

At no stage in its history had Anglican worship been central to the education provided at St Paul's,⁵⁹ and though the 1876 scheme for St Paul's decreed that religious instruction at the school was to be 'in accordance with the principles of the Church of England',⁶⁰ a dedicated chapel did not form part of the building until the 1920s.⁶¹ Instead, the Hall, as Walker had initially suggested, served as the meeting place for daily prayers⁶² for most pupils.⁶³ Its quasi-religious purpose was suggested in its design, which featured an apse-like southern end, initially empty, but ultimately adorned with an organ built to commemorate Benjamin Jowett.⁶⁴

The room's public-facing, ceremonial function⁶⁵ was the one to which it owed its existence, and it was the governors who were most conscious of this, rescuing the potentially discarded Hall when the Charity Commissioners edit of the plans required a significant reduction in the scale of the building.⁶⁶ The status of this theoretically wasteful spend had already been established at schools such as Dulwich College⁶⁷ and, the governors would no doubt have been aware that City of London (**FIGURE 37**) were planning a magnificent Hall in their new building.⁶⁸ The Mercers' centuries-old tradition of entertaining in their own Hall would no doubt have further underlined its relevance.

⁵⁹ CC (1864), Vol.5, p.194. The CC noted that: 'From the first, religious observances required of the scholars seem to have been neither numerous nor burdensome.'

⁶⁰ Seaton (1911), p.151.

⁶¹ Richards (1968), p.18. A chapel was added in 1926.

⁶² Coutts-Trotter (1911), p.119; Bailey (undated), p.31. The assembly was led by Walker, but prayers were read by the Captain of the School.

⁶³ Maclure (1965/1986), p.91. The Endowed Schools Act allowed parents to withdraw their children from any period or periods of denominational religious instruction. Richards (1968), p.20. Jews and other 'non-conformers' assembled in the art room during prayers.

⁶⁴ Ibid., p.14. Added in 1896.

⁶⁵ Woolf (1960), p.74. It was here that the school held the annual prize-giving, Apposition.

⁶⁶ See Ch.7, p.255.

⁶⁷ See Ch.4, p.122.

⁶⁸ Hinde (1995b), pp.62-3. *The Illustrated London News* featured the Hall with its elaborately carved ceiling.

The Hall at City of London School, as it had been at Dulwich College,⁶⁹ was to be splendidly kitted out to reflect its 'Sunday best' purpose, but, at St Paul's, the completed room was initially decidedly workaday. The walls and windows were unadorned, the woodwork durable pitch pine and the room furnished with heavy benches of the type that allowed the desk to be turned over to form a back. Only slowly was ornament added.

Beyond these two functions, ultimately widely adopted in schools elsewhere,⁷⁰ the Hall at St Paul's played an even more significant role, one that was perhaps unique to the school and was, according to the testimony of former pupils, unusually resonant.⁷¹ For it was here that Walker installed his recently elected 'foundation scholars'⁷² in a class known simply as 'The Hall',⁷³ where they were drilled in the fundamentals of Latin and Greek grammar.⁷⁴

This process seems to have been particularly intense. Boys, already awed⁷⁵ by their progression to a large secondary school, were spread out sparsely in the vast

⁶⁹ Blanch (1877), p.24. William Blanch, in a book published a year before the work at St Paul's began, describes the extravagant show of polished marble, rich carving and armorial bearings in the 'splendid' hall (now Grade II* listed).

⁷⁰ Clay (1902/ 1906), p.15, pp.44-6.

⁷¹ Similar accounts of its use have appeared in various autobiographies (Sams, 1933, p.22; Woolf, 1960, pp.74-5; Mackenzie, 1963, p.101; Bailey, undated, p.31), as well as in several novels (Mackenzie, 1913, pp.123-4; Raymond, 1961, pp.26-31).

⁷² Seaton (1911), p.152, p.168, p.192. i.e. the boys who benefitted from full-fees scholarships. Though the 1879 scheme, allocated 77 of the foundation scholarships to the Classical Side, 76 to the Modern, in 1891 the number of scholarships held on the Classical Side was 133, with only 20 on the Modern Side. The revised scheme of 1900 redistributed this (See n.270 below).

⁷³ Woolf (1960), p.74; Sams (1933), p.22; Mackenzie, (1963), p.102. In his autobiography, Mackenzie refers to it as 'The Special', the name he also uses in *Sinister Street*. Coutts-Trotter (1911), p.141. Coutts-Trotter also refers to it as The Special.

⁷⁴ Sams (1933), p.22; Woolf (1960), pp.74-5; Mackenzie (1963), p.101; Bailey (undated), pp.31-2.

⁷⁵ Sams (1933), p.16; Bailey (undated), p.31.

room⁷⁶ with little opportunity to communicate with one another.⁷⁷ They were then set to repetitive labour,⁷⁸ labour intermittently interrupted by the (it would seem) terrifying appearances of the High Master, who would arrive unannounced several times a day and pounce on individual pupils, interrogating them about their work.⁷⁹ After several months in this class,⁸⁰ boys were placed in a higher form than they would have joined in the natural order of things.

Walker's method seems to have fulfilled several functions. Firstly, it allowed able boys to bypass the more protracted and tedious work carried out in the lower forms while ensuring they received a formidable grounding,⁸¹ improving their potential to take on the challenging work required in university scholarship exams. It also allowed the High Master, who taught no other class, to learn more about the capacity of individual pupils⁸² and seems to have imbued boys who experienced it with a profound respect for the academic function of the school.⁸³

As most accounts of this intimidating rite of passage are provided by former scholarship boys, it is often overlooked that 'the Hall' was also dedicated to those requiring remedial help,⁸⁴ and, as such, may be considered one of the earliest

⁷⁶ Nash (1949/88), p.63; Mackenzie (1963), p.101.

⁷⁷ Woolf (1960), pp.74-5.

⁷⁸ Ibid., p.75; Mackenzie (1963), p.101; Bailey (undated), p.31.

⁷⁹ Coutts Trotter, (1911) p.141; Woolf (1960), p.75; Mackenzie (1963), pp.101-2; Bailey (undated), p. 31.

⁸⁰ Woolf (1960), p.75; Bailey (undated), pp.31-2.

⁸¹ Woolf (1960), p.75. Woolf describe the process as an 'educational machine for producing classical pâté de foie gras'; its effect: 'instilling the foundations of the ancient Greek and Roman languages... as thoroughly as the multiplication tables.'

⁸² Ibid.; Coutts-Trotter (1911), p.141.

⁸³ Marcy (1932), p.15; Woolf (1960), p.75.

⁸⁴ Coutts-Trotter (1911), pp.141-142. Victor Coutts-Trotter states that 'The Special' allowed for 'Individual rather than group teaching', also supporting boys whose work was generally good, but were struggling in certain subjects, and 'backward boys', who had become stuck in a certain form. Marcy (1932), pp.17-18, confirms this use. He himself was placed in the Hall 'because there were hopes of making something of me as

‘special educational needs’ classrooms. There is little doubt, however, that the special educational needs that received most attention at the school were those of the ‘gifted and talented’.

Long before the end of Walker’s headship, St Paul’s had become known as ‘a school of “swots”’,⁸⁵ and there is almost universal agreement that winning scholarships, particularly classical scholarships,⁸⁶ was Walker’s driving motivation.⁸⁷ (This is not quite as ruthless as it might seem, since, it must be remembered, that for many, the only realistic means to pay for higher education or training was through scholarship funding).⁸⁸ The evidence provided in personal testimony strongly suggests that the Hall at St Paul’s, particularly once it had been decorated, became (as in the case of the German *aula*)⁸⁹ a space which physically embodied the values of the school.⁹⁰ As Ernest Raymond, an old boy,⁹¹ puts it in his fictional portrayal of St Paul’s. ‘They were hot-housed in this hall, between the windows emblazoned with the arms of their famous predecessors, so that they might achieve what he (the head) seemed to think the sole reason for their attendance at St Erkenwalds’... “You are here, boy, he would bellow, for nothing else than to bring honour to your school.”’⁹²

a classical scholar’; one of his brothers was placed there ‘because of his incapacity to cope with the form work’; while another because: ‘in Walker’s view, at the age of 16, he was not in a sufficiently high form’.

⁸⁵ Chesterton (1936/1959), p.68.

⁸⁶ *ibid.*; Woolf (1960), p.75.

⁸⁷ *ibid.*, p.75. See Ch.6, p.208.

⁸⁸ Coutts-Trotter (1911), p.138; Rothblatt, S. (1968), p.66, p.69, p.80. Rothblatt provides a useful analysis of the high cost of a university education (between £205-£402 in total) and how this could be financed by those not from the wealthiest homes. ‘Widening access’ by making costs more manageable was a serious concern from the 1870s. *MM*, 9th July, 1888. It is clear, moreover, that Walker believed scholarships fulfilled other functions. He pleads, for example, for scholarships for ‘the Army form’ on the basis that: ‘it would raise the importance of the army classes in the eyes of the school and give candidates increased self-respect’; and that it would encourage boys to enter the army rather than ‘the usual professions which are so crowded that it is painful to see boys entering upon them unless they have some exceptional advantages.’

⁸⁹ See Ch.4, p.119-120.

⁹⁰ Later decoration (*see below*) was to emphasise this.

⁹¹ Gardiner (1906), p.424. Raymond attended the school from 1901-04.

⁹² Raymond (1961), pp.28-9.

The science laboratories (FIGURE 38)

While there is no doubt that Walker's priority at St Paul's was for his pupils to win classical scholarships to Oxford and Cambridge, at St Paul's, as at MGS, he was to champion the prospects of all pupils.

As has been shown,⁹³ in the scheme of 1879, the governors exercised their option to integrate a 'Modern Side' with a 'Classical Side' in a single building, but, to fully appreciate the radical nature of their decision it is important to recognise the fluidity of the term 'Modern' at this time.

As has been demonstrated, the study of 'Modern' ⁹⁴ (i.e. non- classical) subjects had become widespread in endowed grammar schools and proprietary schools⁹⁵ from the middle of the 19th century, largely due to pressure from middle-class families seeking a more career-related education for their children. The 'Great Schools' examined by the Clarendon Commission, however, had largely resisted this development, consistently defending the primacy of a classical curriculum. In this they were largely supported by the Clarendon Commissioners, who, after measured discussions of various approaches to the Modern Side, declared that these schools:

are, and we think they ought to be, essentially classical schools, and we do not think it advisable that they should propose to their scholars two alternative

⁹³ See Ch.5, p.152.

⁹⁴ CC (1864), Vol.1, p.35. A modern side taught: 'modern languages, mathematics, natural science, history, geography and other branches of an English education, classical teaching being made of subordinate and not of primary importance.'

⁹⁵ CC (1864), Vol.1, p.37. Marlborough College and Cheltenham College, both proprietary schools, were cited as examples by the Clarendon Commission of schools where attempts had been made to 'engraft a modern department upon a classical school.'

courses of study... It may be very desirable, and we think it is, that the experiment should be tried; it may be desirable that schools organised upon this principle should exist, but we do not recommend the introduction of it at those which form the subject of this Inquiry.⁹⁶

Even after enforced modifications to their curricula in the wake of the Public Schools Act (1868), these schools,⁹⁷ only slowly and, in most instances,⁹⁸ reluctantly, introduced some change.⁹⁹ Their example tended to influence the curricular approach at schools elsewhere, particularly boarding schools desiring to emulate their status. Therefore, the radically different decision taken at St Paul's, widely recognised as a 'Great School', to combine a 'Classical' and 'Modern' side on a more-or-less equal footing is of particular significance.¹⁰⁰

The name applied to the 'Modern' side at St Paul's above all indicates its role. From its inception, it was known as the 'Science Side',¹⁰¹ and its main thrust was to prepare pupils to proceed to tertiary education and training in a range of professional careers beyond the 'learned professions'.¹⁰² Though the status of the Science Side

⁹⁶ CC (1864), Vol.1, p.39.

⁹⁷ i.e., Eton, Harrow, Winchester, Westminster, Rugby, Shrewsbury, Charterhouse.

⁹⁸ Wilson (1932), pp.60-64. Rugby was the main exception, but, even here, when James Wilson gave evidence to the CC in 1862 (CC, 1864, Vol. 5, p.312), he bemoaned the fact that 'all the able boys at school are in fact heavily bribed to study either classics or mathematics...'. Rugby did not introduce a Modern Side until 1886.

⁹⁹ Clay (1902/1906), p.12. Even in 1902, Eton, Winchester and Charterhouse had 'special classes rather than a regular modern side'.

¹⁰⁰ Hodges (1981), p.35, p.36, pp.46-8, p.57, p.59. Other London day schools did not establish a 'Science Side' till after St Paul's. Dulwich College introduced a 'Science Side' and a Modern form to prepare boys for the army under the headship of J.E.C Welldon (1883-5); Douglas-Smith (1937/ 1965), p.271, pp.293-4. At City of London, the Science Side was founded in 1891.

¹⁰¹ Shepard (1961/ 2002), pp.71-2. Science was not its only curricular content. Ernest Shepard describes being in two forms on the 'Science Side' before studying any science.

¹⁰² i.e., the law, the church, or the Civil Service, for which a background in classics remained the primary pre-requisite.

remained (as is widely acknowledged by contemporary pupils)¹⁰³ lower than that of the Classical Side, at St Paul's the term never implied, as it often did elsewhere, preparation for the 'commercial' sphere (i.e. business).¹⁰⁴ The curriculum on the Science Side was intellectually challenging,¹⁰⁵ the standards of teaching equally so.

As is clear from the Mercers' Minutes, the governors already intended science to be taken seriously at the time of Walker's appointment,¹⁰⁶ and, given his outstanding success in this regard at Manchester, their decision to hire him must have taken his background into consideration.

Historians are often confronted with the difficulty that words shout louder than deeds, particularly as we are only left with the words of those who choose to use them, and accounts of the education provided at St Paul's during the period after the rebuild have largely been left by those who studied on the 'Classical Side'.¹⁰⁷ This appears to have somewhat skewed the evidence.

Information of how the new school building was planned, executed and staffed present a counterbalance to many of these autobiographical sources, and, in this context, it is important to note that the facilities ultimately provided for the study of

¹⁰³ Woolf (1960), p.74; Bentley (1940), p.58.

¹⁰⁴ Salter, H. quoted in Hinde (1995), pp.19-20. It was not intended, as at King's College School, where the Modern Side was established in the 1850s, as a 'department for those going into trade'.

¹⁰⁵ Armitage (1911), p.200. 'In many school the early days of science teaching were days of merriment to many of the learners... But there was no merriment at St Paul's, only hard work and scholarships.'

¹⁰⁶ MM, 27th October, 1876. On his appointment, the clerk was 'directed to write to Mr Walker that he had been elected High Master... and that in the event of the Governors establishing a single school with a Classical and Modern department under the 84th clause of the scheme Mr Walker will undertake to be the High Master of both departments.'

¹⁰⁷ See Ch.2, p.62. Many of the autobiographical accounts have been left by classicists (Marcy, 1932, Sams, 1933, Woolf, 1960, Mackenzie, 1963, Bailey, undated), and even those educated on the Science Side (Bentley, 1940, Shepard, 1961) who left written accounts were often not scientists.

science¹⁰⁸ accounted for about a sixth of the internal square footage, and the cost of these facilities and the care with which they were planned was equal to that of institutions providing the most advanced scientific instruction in the country.

The teaching of science began on the City site in 1879, when two science forms were established with a total of 20 boys.¹⁰⁹ At this juncture, part of the High Master's house was converted into laboratories for chemistry and chemical physics¹¹⁰ with additional accommodation obtained by annexing the Surmaster's house.

Significantly, the Minutes emphasise that the teaching should be 'thoroughly practical',¹¹¹ and water and gas were laid on and a sum of £250 allocated for equipment. By the time the school moved into its new premises, about a quarter of the pupils (54 boys out of 220) were on the Science Side.¹¹²

Though it would appear the initial decision to place a significant emphasis on science lay with the governors,¹¹³ it was a decision Walker readily accommodated,¹¹⁴ then pursued with his customary vigour, repeatedly pressing for additional resources.¹¹⁵ His support of science at St Paul's was entirely in keeping with his approach at MGS.

¹⁰⁸ i.e., the laboratories, the lecture theatre, and art department.

¹⁰⁹ Watkin, F.W. (1911), p.197, '*Natural Science*' in Gardiner, R.B., Lupton, J. (eds.) (1911).

¹¹⁰ MM, 16TH July, 1879.

¹¹¹ Ibid.

¹¹² Ibid. Pupils had already won two science scholarships to Cambridge and achieved success in the London University matriculation.

¹¹³ MM, 18th March, 1881. At this governors' meeting, a report was read from Walker. 'If I rightly understand the design of the Governors in fitting up a laboratory and creating a Science Mastership at St Paul's, it is that science should ultimately rank with classics and mathematics, and should receive the same requirements, and, among other things, should be endowed with exhibitions at the Universities.'

¹¹⁴ Ibid. Walker asks for a science exhibition to be established and a 'science examiner' appointed 'to evaluate the progress science is making in the school.'

¹¹⁵ MM, 4th November, 1881. Walker repeats his request for a science exhibition and, in March 1884, recommends another science exhibition ('In their arrangement in the new buildings, the Governors are laying great stress on science, and it would I believe be in harmony with these views to put science, as regards exhibitions, more on equality with mathematics and to offer two science exhibitions.').

As has been shown, Walker made accommodation for science instruction his fourth priority in his initial outline,¹¹⁶ and the physical provision for science instruction in the new building was not only unusually ample, but designed and fitted out in the most up-to-date manner. The layouts of the laboratories were (as at Owens College and the City and Guilds Institute) designed by Waterhouse, who initially sought advice about the chemistry laboratory¹¹⁷ from Dr. Henry Edward Armstrong,¹¹⁸ an influential pioneer in the 'heuristic'¹¹⁹ ('discovery') method of teaching science, an approach which was to become dominant in secondary-school science teaching in the following years. In doing so, however, he found himself in conflict with St Paul's newly appointed head of science, Frederick William Watkin,¹²⁰ who had a different perspective on how a laboratory should be organised.¹²¹ (It says much about Walker's management style,¹²² that the chemistry lab, after the governors' building committee had initially come down in favour of Armstrong's layout,¹²³ was eventually constructed to the plans of the science master.) For the layout of the physics laboratory (which appears to have gone uncontested), Waterhouse consulted

¹¹⁶ See Ch.6, p.225. After classrooms, the governors' accommodation, and the art room.

¹¹⁷ MM, 14th December, 1883. Waterhouse comments that he had 'consulted with Dr Armstrong professionally' and 'he was kind enough to give me a scheme which commended itself to my mind as making good use of the room... To which scheme I have partially worked.'

¹¹⁸ Rodd, E.H., rev. Brock, W.H. (2004), '*Armstrong, Henry Edward (1848-1937)*', *Oxford Dictionary of National Biography*, Oxford: Oxford University Press. Armstrong was Professor of Chemistry at the London Institute (1871-84). Elected FRS in 1876, he became associated with the City and Guilds in 1879, and Professor of Chemistry at the new Central Institution in 1884, where he was responsible for training some of the first chemical engineers. He advocated that all secondary schools should be equipped with science labs.

¹¹⁹ Clay (1902/1906), pp.103-4. Clay bases his long description of what is required in a school laboratory on the 'heuristic' method outlined in Armstrong's *Special Reports*.

¹²⁰ *Monthly Notices of the Royal Astronomical Society*, (February 1911), Vol.71, p.275. Frederick William Watkin, MA, FRAS, was appointed in 1883, to replace the first science master, who had left for Rugby. Watkin had been educated at MGS under Walker, winning a junior mathematical scholarship to Corpus Christi College. He was elected a Fellow of the Royal Astronomical Society in 1884. MM, 23rd May 1884. Corpus Christi tried to rehire him as assistant tutor and fellow, and Walker fought for his salary be raised to match their offer.

¹²¹ MM, 14th December, 1883. Walker asked Waterhouse to speak to Mr. Watkin, who supplied him with a layout, 'diametrically opposed to that proposed by Dr Armstrong'. In an interesting power play, Waterhouse requested the advice of the building committee, who, after visiting the lab, endorsed the plan suggested by Armstrong.

¹²² Coutts-Trotter (1911), p.134.

¹²³ MM, February, 1884.

(alongside Mr Watkin) William Adams,¹²⁴ Professor of Natural Philosophy at King's College and examiner in physics for the Department of Science and Arts and the universities of London and Cambridge. The laboratories were 'grouped' together alongside the large lecture theatre¹²⁵ on the top floor of the building, an arrangement Felix Clay later commends as offering the best light and ventilation.¹²⁶

The facilities for science provided in the new building were clearly a matter of some pride, since Lord Selborne drew attention to them at the opening ceremony, underlining the addition of 'physical science' to the curriculum and emphasising this would not have been possible 'without the changes that have taken place'.¹²⁷ The new laboratories were, in fact, not ready for use until 1885,¹²⁸ but the number of boys on the 'Science Side' increased by 40 in the first year at the new building, and, by Christmas 1887, there were 200 boys on this side.¹²⁹ As had occurred under Walker's headship at MGS, the school quickly gained a reputation for winning science scholarships.¹³⁰

By the early 1880s, science had become a pre-requisite for many of the occupations St Paul's pupils were likely to pursue,¹³¹ and, while science may not have shared the glory of classical instruction, it undoubtedly continued to receive the same careful

¹²⁴ Birley, G.I. (2004) 'Adams, William Grylls (1836-1915)', *Oxford Dictionary of National Biography*, Oxford: Oxford University Press.

¹²⁵ Clay (1902/1906), p.105, p.124. Clay recommends that the lecture theatre should be adjoining both the physical and chemical laboratories, as it was at St Paul's.

¹²⁶ *ibid.*, p.106.

¹²⁷ *The Opening Ceremony* (1911), p.91.

¹²⁸ Watkin (1911), p.197.

¹²⁹ *ibid.* After that, until Walker's retirement in 1905, numbers varied from a little below 200 to nearly 250, over a third of the eventual intake.

¹³⁰ Watkin (1911), p.198. In 1887, members of the Science Side won six scholarships at Oxford and Cambridge and a further five in 1888. Boys were also successful at winning scholarships to the teaching hospitals and to University College.

¹³¹ Such as medicine, engineering, the army.

consideration in terms of teaching and resources. Over the next two decades, the school consistently adjusted both the staffing¹³² and physical space available for science to reflect the shifting professional aspirations of its intake.¹³³

From the start, it was clear that medicine, often a family occupation,¹³⁴ was going to be a popular career choice¹³⁵ and biology teaching would, therefore, be necessary. Initially, part of the physics laboratory was requisitioned for practical work in botany and zoology, then, in 1890, a corridor near the chemistry laboratory was adapted to form a biology laboratory.¹³⁶ In 1889, a biology specialist was added to the complement of teachers, and, in 1892, the school hired a medical doctor, who taught chemistry and biology.¹³⁷ By 1895, there were so many boys applying to study medicine that a special form was created (the 'Medical').¹³⁸

Under Walker, the army also became an increasingly popular career destination for boys at St Paul's,¹³⁹ and in 1898, the lower-ground-floor space under the Hall was converted from workshops into a large and well-equipped physics laboratory for the use of the top Science and Army forms.¹⁴⁰ Then, in 1905, just before Walker's retirement, a growing demand to study engineering, led to the creation of two further specialist forms, where the time given to chemistry was decreased, the time given to

¹³² Armitage (1911), pp.202-3. In 1889, two new members of staff were added to the Science Side, followed by two further appointments in 1892.

¹³³ *ibid.*, pp.201-3.

¹³⁴ Gardiner (1906). *The Admissions Registers* indicate that this background was common.

¹³⁵ Armitage (1911), p.201.

¹³⁶ *ibid.* The biology laboratory was created in a passage flanking the chemistry laboratory on the south wall of the school.

¹³⁷ *ibid.*, p.203.

¹³⁸ *ibid.*

¹³⁹ McDonnell (1909), pp.444-5. Under Walker, the numbers entering the army rose significantly from a low base. By 1896, 100 pupils had received commissions.

¹⁴⁰ *ibid.*, p.202.

Maths increased, and physics, for the first time, became a classroom subject for younger boys.¹⁴¹

A more widespread enthusiasm for science was also encouraged in extra-curricular science options, which, even though these took place at weekends, were well-attended.¹⁴² The popularity of science at St Paul's under Walker was such, that by 1895, the Science Side had outgrown its space, and soon after the appointment of his successor in 1905, the school erected a large free-standing purpose-built science block, with three chemistry laboratories and three physics laboratories.¹⁴³

As has been noted, Walker's own degree was partly in Mathematics,¹⁴⁴ a subject with a well-established pedigree, which, at the time of the move, had formed part of the St Paul's curriculum for about fifty years.¹⁴⁵ The subject stood higher in the intellectual hierarchy than Science and enjoyed its own dedicated 'Side', where the most senior boys were taught by F.S. Macaulay,¹⁴⁶ an eminent mathematician. Here, as his former pupil, the celebrated mathematician John Edensor Littlewood¹⁴⁷ later recalled, 'the tradition of teaching... derived ultimately from Cambridge',¹⁴⁸

¹⁴¹ *ibid.*, pp.203-4.

¹⁴² Picciotto (1939), p.91. Extra-curricular science was part of a wider extra-curricular programme.

¹⁴³ Watkin (1911), p.206.

¹⁴⁴ See Ch.6, p.186.

¹⁴⁵ Mead (1990), p.62. Mathematics was taught at St Paul's from 1835, with a specialist mathematician employed from 1843.

¹⁴⁶ O'Connor, J.J. and Robertson, E.F. (2003), '*Francis Sowerby Macaulay*', *MacTutor*, History of Mathematics Archive, University of St Andrews, <http://www-history.mcs.st-andrews.ac.uk/Biographies/Macaulay.html>, (downloaded 3rd June, 2018). Macaulay, who taught at the school from 1885-1911, made significant contributions to algebraic geometry and was elected to a Fellowship of the Royal Society.

¹⁴⁷ Bollobás, B. (2004), '*Littlewood, John Edensor (1885-1977)*', *Oxford Dictionary of National Biography*. Oxford: Oxford University Press. Littlewood, who became Rouse Ball Professor of Mathematics at Cambridge, is considered one of the greatest British mathematicians of the first half of the 20th century. Having exhausted the potential of the Cape University in South Africa by the age of 14, he was sent to St Paul's, where he spent three years before proceeding on a 'minor' scholarship to Trinity College, Cambridge.

¹⁴⁸ Littlewood (1953/ 1986), pp.80-81. 'There were no oral lessons, and while anyone could go to Macaulay in a difficulty, it was on the whole not done. We went up, of course, with paper work at intervals, at first from

concurring with an earlier judgement¹⁴⁹ that the education he received at St Paul's had 'a university atmosphere' ¹⁵⁰ ('self-reliance being the expected thing we most acquired, and as Macaulay himself did creative work, we caught something of the feeling that mathematics was a natural activity').¹⁵¹ The approach was clearly productive as, in the quarter century following the opening of the new building,¹⁵² boys from St Paul's won 41 Mathematics scholarships (34 of them at Cambridge) and 11 exhibitions, while four former pupils became Senior Wrangler¹⁵³ with a further two ranked 2nd and 4th.¹⁵⁴

Under Walker, the school produced numerous eminent mathematicians (including Sir Gilbert Thomas Walker,¹⁵⁵ G. N. Watson¹⁵⁶), scientists (the aircraft pioneer Sir Edwin Alliott Verdon-Roe,¹⁵⁷ the inventor Archibald Montgomery Low,¹⁵⁸ the botanist

examples marked by him in the current book, later from our own selection... The class were encouraged to go to seniors for help, I should say to the great benefit of all concerned.'

¹⁴⁹ *ibid.*

¹⁵⁰ Sams (1933), p.25. Sams confirms that this approach was mirrored on the Classical side, where teachers 'treated the older boys more like undergraduates than like schoolboys'.

¹⁵¹ Littlewood (1953/1986), p. 81. The university-like education at St Paul's in the higher forms is further demonstrated by Littlewood's recollection that when sitting the scholarship exam to Cambridge he sat next to a graduate of Manchester University 'who was making a fresh start at Cambridge, a not uncommon practice at the time.'

¹⁵² O'Connor and Robertson (2003). Between 1885-1911.

¹⁵³ Littlewood (1953/1986), p.81. McDonnell (1909), p.449. Seven gained the coveted Smith's Prize, for Mathematic and theoretical physics research.

¹⁵⁴ Littlewood (1953/1986), p.81.

¹⁵⁵ Sheppard, P.A., rev. Falconer. I. (2004), '*Walker, Sir Gilbert Thomas' (1868-1958)*', *Oxford Dictionary of National Biography*, Oxford: Oxford University Press. Walker was a foundation scholar at St Paul's from 1881-6, before gaining a Mathematical scholarship to Trinity College, Cambridge. He went on to publish a series of influential papers on electro-magnetism, become director general of observatories in India, then Professor of Meteorology at the Imperial College of Science and Technology.

¹⁵⁶ Whittaker, J.M., rev. Sneddon, I. N. (2004), '*Watson, George Neville (1886-1965)*', *Oxford Dictionary of National Biography*, Oxford: Oxford University Press. A contemporary of Littlewood, Watson won a scholarship to Trinity College in 1904, becoming Senior Wrangler in 1907. He later became Mason Professor of Pure Mathematics at the University of Birmingham, winning the De Morgan medal and the Royal Society's Sylvester Medal.

¹⁵⁷ Pritchard, J.L., rev. Adams. S. (2004), '*Roe, Sir (Edwin) Alliott Verdon (1877-1958)*', *Oxford Dictionary of National Biography*, Oxford: Oxford University Press. Roe designed the first enclosed cabin aeroplane, and the Avro 504, the best-known military airplane of the First World War.

¹⁵⁸ Bussey, D. (2009), p.106, *John Colet's Children, The Boys of St Paul's School in Later Life (1509-2009)*, Oxford: Gresham Books Ltd. Low, winner of two science prizes at the school, became a pioneer in guided

Francis Kingdon-Ward¹⁵⁹) and doctors (Bertrand Edward Dawson,¹⁶⁰ the first doctor to enter the House of Lords, the arctic explorer George Murray Levick¹⁶¹).

While it is clear that Walker¹⁶² and his pupils considered the 'Science Side' the less prestigious 'stream',¹⁶³ it is significant to understand why this was the case. This imbalance is best illustrated in a story told about Walker, in which he is said to have attempted to persuade a boy 'of very exceptional ability' not to study science but instead to try for a classical scholarship. Though Walker was himself a classicist, he was, above all else, a realist, and his advocacy of a classical education stemmed not merely from the conviction (still widespread among public-school headmasters of the time) about the inherent superiority of the classics,¹⁶⁴ but because he recognised that a classical education could lead to a fully-funded education at Oxford or Cambridge and, from there, to many of the best-paid jobs. As he is said to have commented to the boy in question: 'If you go in for science, your future is quite uncertain. If you stick to your classics properly, I will undertake to say that you will pay for your education and be able to earn £400 a year within a reasonable time

rockets, planes and torpedoes. In the 1920s, he was one of the first to forecast the concept of television. From St Paul's he went on to the Central Technical College.

¹⁵⁹ Allan, D.E. (2004), '*Ward, Francis Kingdon- (1885-1958)*', *Oxford Dictionary of National Biography*, Oxford: Oxford University Press. Ward attended Cambridge on a science exhibition.

¹⁶⁰ Lock, S. (2004), '*Dawson, Bertrand Edward, Viscount Dawson of Penn, 1964-1945*', *Oxford Dictionary of National Biography*, Oxford: Oxford University Press.

¹⁶¹ Priestley, R., rev. Baignet, E. (2004), '*Levick, (George) Murray (1876-1956)*', *Oxford Dictionary of National Biography*. In 1910, Levick was surgeon and zoologist on Scott's Terra Nova expedition to the Antarctic.

¹⁶² Coutts-Trotter (1911), p.140. '...undoubtedly it is as a great classical that St Paul's has been most renowned, and justly so...'

¹⁶³ Most autobiographical accounts of the Walker years confirm this perception. Woolf (1960), p.74, p.77. Leonard Woolf writes of the school's 'classical fanaticism'. 'If you came to school without a scholarship, you were shuffled off at once into an appropriate form, on the classical side if you seemed to be fairly bright, but if not so bright, on the army, science or history side'. Bentley (1940). The writer Edmund Clerihew Bentley, confirms this perspective, describing his own experience of 'occasionally heading the class list (on the science side it is true, which at St Paul's in those days did not really count)'.

¹⁶⁴ Coutts-Trotter (1911), p.147. This was a view Walker primarily shared, saying, 'You cannot get an education which widens the mind more, and is more truly liberal, than one which compels you to case your ideas into the language and thought of another Age.'

afterwards'.¹⁶⁵ It was, indeed, not until after the Second World War that science in England was to gain parity of esteem¹⁶⁶ or parity of pay.¹⁶⁷

It must be remembered, too, that though the natural science preliminary exam was introduced at Oxford in 1871 and the principle of the science degree was accepted by the Hebdominal Council in 1877,¹⁶⁸ a classical background remained essential for those who hoped to study science at Oxford. Until 1887 all undergraduates were required to take a Classical pass or honour moderations before proceeding to a final school, and Classical Greek remained a compulsory component of the science degree until the early 20th century.¹⁶⁹

Walker's position vis-à-vis the 'Science Side' was brought into sharp focus in the 1890s, when the school came under attack for not fully implementing the 1879 scheme.¹⁷⁰ At this point, it was drawn to the attention of the Charity Commissioners that a separate headmaster had not been appointed for the Modern Side, and that the 1879 scheme, which had required the Coletine foundation scholarships to be evenly divided between the Classical and Modern sides remained heavily weighted in favour of those on the Classical Side.

¹⁶⁵ *ibid.*, p.124.

¹⁶⁶ Alter (1987), pp.217-225, *The Reluctant Patron, Science and the State 1850-1920*, Oxford, Hamburg, New York: Berg. British scientists in the late 19th century gained only limited access to the social and political elite, unlike in France, where graduates of the *Ecole Polytechnique* filled high positions in public administration and private industry, and Germany where, according to Fritz K. Ringer, they were acknowledged as privileged 'mandarins'.

¹⁶⁷ *ibid.*, pp.223-5. Outside the universities (where, in 1902, it has been estimated there were only 300 positions for scientists), a career as a scientist was 'little more than a phantom', attracting salaries that were 'at most, scarcely a pittance'.

¹⁶⁸ Howarth, J., p.466, p.488, p.459, *The Self-Governing University, 1882-1914*, in Brock, M.G. and Curthoys, M.C. (eds.) (2000). The percentage of honours graduates in Natural Science remained just 7.6 per cent between 1880-4, rising to 10.9 per cent in 1895-9; Ward (1965), p.289.

¹⁶⁹ Howarth (2000).

¹⁷⁰ Doolittle (1994), pp.168-9. The school began to be criticised by the radicals in the late 1880s, and, in November 1890, the Charity Commissioners became involved.

In response to these criticisms, the governors commissioned two of their number, Lord Selborne and James (later Lord) Hannen,¹⁷¹ both eminent lawyers, to produce an internal report which concluded that ‘the time had come to carry out the provisions of the scheme more fully’.¹⁷² When their findings, however, were put forward to the Charity Commissioners, a lengthy and complex battle ensued. The battle was primarily a political argument about the nature of secondary provision in the capital,¹⁷³ but it did throw into relief the difference between a ‘Modern Side’ (i.e. one element of a fully integrated curriculum) and a ‘Modern School’ (one which prepared boys for a different walk of life), a critical theme from the mid-century.

As this juncture, the Charity Commission suggested that St Paul’s was a ‘Classical’ school, teaching some science, and, therefore, demanded the foundation of a separate Modern school, which, most controversially, was to be a school of a ‘lower grade’.¹⁷⁴ St Paul’s, in reply to these proposed changes, announced its intention ‘to preserve the unity of the great School which has grown up in West Kensington’.¹⁷⁵ St Paul’s had powerful friends¹⁷⁶ and this ambition was ultimately realised,¹⁷⁷ but the

¹⁷¹ Polden, P. (2004/2013), ‘Hannen, James, Barron Hannen (1821-1894)’, *Oxford Dictionary of National Biography*, Oxford: Oxford University Press. Hannen, later a Law Lord, was President of the new Probate, Divorce and Admiralty division of the High Court, where he was known for his impartiality and integrity.

¹⁷² Seaton (1911), p.155.

¹⁷³ *ibid.*, pp.159-162. It partly centred on the use of the Coletine estate, which it was (wrongly) argued had originally been intended for the poor, and partly on, the more radical claim, that the endowment should be considered part of a London-wide network of schools (rather than a ‘national’ ‘public’ school). Amongst the recommendations the school resisted were: the appointment of governors by the London County Council and the London School Board; better provision for technical education; scholarships reserved specifically for boys from endowed school with fees below £15 a year, or those who had attended an elementary school for at least three years before entry; the introduction of a cheaper Modern department in the existing school.

¹⁷⁴ *ibid.*, p.157.

¹⁷⁵ *ibid.*, p.167, p.191. Colonel Montagu Clementi, Master of the Mercers in 1892, quoted in Seaton. In 1900, a new scheme was ratified, which varied only slightly from the 1879 scheme.

¹⁷⁶ *ibid.*, p.185. *The Times*, for example, backed the school.

¹⁷⁷ *ibid.*, p.192. Section 68 of the scheme ratified in 1900 confirmed that one third of the foundation scholarships should be allocated to subjects ‘proper to the Modern Department’.

point to note is that Walker clearly believed the school was already offering a high-quality integrated curriculum of the type necessary to take all its pupils on to a broad range of professional careers. At this juncture, he wrote in a letter to *The Times* on October 5th, 1893:

at present a third of the foundationers do in fact, at some time of their school life, join one or other of the Modern Departments.¹⁷⁸ The mistake of the Commissioners lies in considering the boys in our lower forms as classical in anything but name. They are only receiving a classical education in the sense that they are being taught the rudiments of that linguistic and literary training that is required of every man who is to follow a liberal profession.¹⁷⁹

The art room (FIGURE 39)

The ability to draw (rather than to paint) was a pre-requisite for a wide range of middle-class professions in the latter part of the 19th century, and the skills taught by the art department at St Paul's would have been considered essential preparation not only for those contemplating careers as professional artists,¹⁸⁰ but for those with ambitions to enter the army,¹⁸¹ engineering,¹⁸² architecture and medicine. It is, therefore, unsurprising that, in July 1879, the governors recommended 'that the

¹⁷⁸ Mathematics and French were considered 'Modern' subjects.

¹⁷⁹ *The Times*, October 5th, 1893; Bailey (undated), p.42; Woolf (1960), p.77. Both Cyril Bailey and Leonard Woolf concur, however, that 'Classical' scholars studied no science, English Literature or Modern History. They did, however, study Mathematics and French until they entered the Eighth form.

¹⁸⁰ Chesterton (1936/1959), p.72; Bussey (2009), p.125, p.133.

¹⁸¹ MM, 22nd July, 1884. Walker stresses the importance of art for army applicants. Hamilton, N. (2004/2011), 'Montgomery, Bernard Law (known as Monty), 1st Viscount Montgomery of Alamein (1887-1976)', *Oxford Dictionary of National Biography*, Oxford: Oxford University Press. Walker's most celebrated military alumnus was Field Marshall Montgomery, who entered the Army Class at St Paul's in 1901.

¹⁸² Kargon (1977), p.188. Mechanical Drawing formed part of the engineering training.

headmaster shall be empowered to engage a suitable drawing master'.¹⁸³ The first art master, Robert Harris,¹⁸⁴ like the science master, came from Manchester and remained at the school throughout Walker's headship.

Until the move, art was taught in the main schoolroom, but the new building provided expansive bespoke facilities, and the very large art department¹⁸⁵ was positioned in the centre of the first floor, a location that, from the Renaissance, has been widely considered to be the most prestigious in any public building.¹⁸⁶ As with the science laboratories, the head of art was 'given a free hand to arrange the Art School at his discretion',¹⁸⁷ but Harris felt the room itself had its limitations, punctuated by 'unsightly pillars' (required to support the large lecture theatre above), which spoiled it 'for art purposes'.¹⁸⁸

In its new quarters, the art department was responsible for a wide range of skills, from life drawing and painting from nature to penmanship, modelling, wood carving, architectural work, engineering, biological and model drawing.¹⁸⁹ As Harris notes, too, 'a fair proportion of mathematical work has fallen upon the Art School' as 'the increased importance of practical geometry in all public examinations has, of necessity, forced the teaching of art in certain forms into a secondary position'.¹⁹⁰

¹⁸³ MM, 16th July, 1879.

¹⁸⁴ Harris (1911), p.208.

¹⁸⁵ McDonnell (1909), p.441. With space for 90 boys, about one sixth of the intake.

¹⁸⁶ <https://www.britannica.com/technology/piano-nobile>. (downloaded 18th June, 2018). At City, for example, this was the location of the Hall. MM, 30th January, 1879. As Waterhouse makes explicit, its position here allowed him to make the '*classroom very high on the window side...so as to give adequate and steady (north) light even to the further extremity of the room.*'

¹⁸⁷ Harris (1911), p.209.

¹⁸⁸ Harris (1911), p.209.

¹⁸⁹ *ibid.* p.210. Blanch (1877), p.32. Drawing was also taken seriously at Dulwich College, where, from the 1870s, two one-hour lessons a week were provided for all students in the senior department with specialist instruction for those preparing for professions such as engineering.

¹⁹⁰ Harris (1911), p.210.

At the new school, younger pupils had regular drawing instruction in the morning (a part of the day now, of course, reserved for the most taxing work, such as numeracy and literacy),¹⁹¹ and the school made constant use of the 'Government Science and Art Examinations'¹⁹² (which Walker considered 'of a most useful character').¹⁹³

The Army Classes, formed in 1888,¹⁹⁴ derived particular benefit from the art room, often taking 'first place in drawing in the Woolwich and Sandhurst (entrance) examinations'.¹⁹⁵ Drawing was also considered of benefit to the school's university-bound mathematicians, and St Paul's was the 'the only public school in England that taught geometry of space'.¹⁹⁶

The career of professional artists was then considered less precarious than it might be today,¹⁹⁷ and Walker was as energetic in his encouragement of art scholarships as other forms of scholarship.¹⁹⁸ As with other potential scholarship routes, he created 'A special Drawing Class', where nascent artists, like nascent classicists, could focus most of their time.¹⁹⁹ Certainly he seems to have been productive in this

¹⁹¹ Shepard ((1961/2002), p.73. Ernest Shepard recalls these being twice weekly.

¹⁹² MM, 27th March, 1885. At this date, 70 boys had passed '*in the second-grade drawing*'.

¹⁹³ *ibid.*

¹⁹⁴ McDonnell (1909), p.444. Originally the Woolwich and Sandhurst classes.

¹⁹⁵ Harris (1911), p.210.

¹⁹⁶ *ibid.*, p.210. Harris notes that the subject was '*of the greatest value*' to those intending to take a mathematics degree.

¹⁹⁷ Bentley (1940), p.59, p.67. G.K. Chesterton's literary ability was recognised at school, but he went on to study at the Slade, because 'his parents were mistrustful of writing regarded as a means of livelihood', and were 'more hopeful of his future as an artist'.

¹⁹⁸ Shepard (1961/2002), p.74. When Walker discovered that Shepard intended to become a professional artist, he made it clear that he was expected to secure a scholarship to the Royal Academy.

¹⁹⁹ *ibid.*, p.74, p.85. Here, Shepard, was only expected to study French and Mathematics twice a week.

endeavour, as the school taught Duncan Grant,²⁰⁰ Paul Nash,²⁰¹ and the renowned war artist Eric Henri Kennington.²⁰²

The facilities for sport (FIGURE 40)

On its City site, apart from its unsightly underground playground,²⁰³ the school had had no outdoor space, and, in the early 1860s, the Clarendon Commissioners had expressed particular concern about its meagre allowance for '*recreation and exercise*'.²⁰⁴ Accordingly, the provision for exercise was a priority during the relocation, and, as has been noted elsewhere, the extent of the land was a critical factor in the decision about which site to purchase.²⁰⁵

Once the site had been acquired, however, team games were never at the forefront of discussions, and, as has been noted, Walker's initial brief made only passing reference to these.²⁰⁶ His concern was exclusively for 'regulated and systematic gymnastics', and his only request was for a large building resembling a covered playground, where boys could receive physical training 'under competent direction', and 'a few fives courts'.²⁰⁷

²⁰⁰ Bell. Q. rev. Spalding, F. (2004), '*Grant, Duncan James Corrowr (1885-1978)*', *Oxford Dictionary of National Biography*, Oxford: Oxford University Press. Grant spent two years at the school, where he won two art prizes.

²⁰¹ Nash (1949/1988), p.63.

²⁰² Bussey (2009), p.134.

²⁰³ McDonnell (1909), p.414. In 1858, *The Times* in a leading article described the playground as 'a gloomy cloister... it looks like the exercising ground of a prison rather than the playground of school boys'. Mead (1990), p.81. The new building, too, included a cloistered semi-subterranean floor intended as a covered playground.

²⁰⁴ CC (1864), Ch.5. p.196.

²⁰⁵ MM, 16th February, 1877; Ch.5, pp.172-3.

²⁰⁶ See Ch.6, p.220.

²⁰⁷ *ibid.*, p.228.

Participation in compulsory competitive team games has been widely considered by education historians to be a defining characteristic of 'public schools' as these evolved in the last quarter of the 19th century,²⁰⁸ a means of developing school identity, exerting control and instilling the personal characteristics necessary to prepare pupils for future careers governing an empire. At St Paul's, Walker's approach to games bore no resemblance to these ambitions. As Victor Coutts-Trotter wrote of his approach:

He (Walker) was ever solicitous for the health of his boys and games flourished at the school during his high mastership, but in his view, they were means not ends in themselves, and they were never allowed to interfere with what he considered to be the proper hours of school work...The theory of education which is most in favour today...would look to the discipline of school games and the discipline wielded by boys over one another out of school hours as the deepest and most lasting influences on a boy's character. Such a view of public school education has been held by many eminent men, and had a far-reaching effect upon our system; but, be it right or wrong, assuredly it was not his.'²⁰⁹

The opportunity to participate in team games had been available to boys at St Paul's from the 1840s,²¹⁰ though at this juncture sport was carried out on an entirely voluntary basis, with pupils paying to join 'clubs' and travelling some distance from

²⁰⁸ Mack (1941); Newsome (1961); Bamford (1970); Honey (1977); Mangan ((1981); Gathorne-Hardy, J. (1977), *The Public School Phenomenon*, London: Hodder and Stoughton.

²⁰⁹ Coutts-Trotter (1911), p.120.'

²¹⁰ Mead (1990), p.65; Brown (1911), p.24.

the school to play.²¹¹ In consequence, participation had generally been patchy.²¹²

Initially at least, this seems to have been the case at the new school, and as Cyril Bailey, himself a keen athlete, recalled:

In the early day of the Michaelmas term of 1884, the boys would wander listlessly about the play-ground, hardly knowing what to do. But one or two of the masters began to instruct them in Rugger and in a few years' time the St Paul's XV was not easily beaten. Whether Walker was somehow behind this kind of development, too, I do not know, but I suspect he was.²¹³

The removal of the school to West Kensington left it with 11 acres of playing fields, certainly a vast improvement on the City site, but nothing compared to Marlborough's 68 acres or Harrow's 146,²¹⁴ and not sufficient to allow for daily participation in games for all.²¹⁵ Competitive team sport, as various former pupils attest, appeared to be of largely peripheral interest to the head.²¹⁶ Participation remained optional until 1897,²¹⁷ when sport became compulsory just once a week,²¹⁸ and, throughout Walker's headship, the head boy was never an athlete, always the head of the

²¹¹ *ibid.*, p.24. 'For physical education, the School accepted no responsibility.'

²¹² Bailey, E.S. (1911), p.246, *Athletics in St Paul's School* in Gardiner, R.B., Lupton, J. (eds.) (1911). *The Pauline* reported a rugby football match of 1883 in which St Paul's only fielded 13 players.

²¹³ Bailey (undated), p.30.

²¹⁴ Mangan (1981/2000), p.71.

²¹⁵ Stuart, I.M.B. (1932), p.151, *Supplement to Reminiscences of a Public Schoolboy*, London: Elkin Mathews & Marrot. The school had space for only three rugby football grounds.

²¹⁶ Bailey (undated), pp.29-30; Bentley (1940), p.60. Both Cyril Bailey and Edmund Bailey record Walker remarking: 'I know nothing of/about cricket', when announcing the success of the St Paul's cricket team at a prize-giving ceremony.

²¹⁷ Mead (1990), p.89.

²¹⁸ Bailey, E.S (1911), p.245. Up to this point, the school had been divided into classics, mathematics and science sides for sports competitions, but, from 1899, six 'clubs' were introduced instead.

Classical Eighth.²¹⁹ It was academic rather than sporting success, which conferred status at St Paul's.

The expectations of boys, however, no doubt affected by their peer group and external fashion, did not always conform to those of their educators, and various writers have given their perspective on team games at the school. These, unsurprisingly, reflect the relative sporting enthusiasm of the author, but seem to confirm there was considerable latitude in expectation.²²⁰ The achievements of those who excelled in this area were recognised and elicited admiration amongst boys, but those wearing the cap and gown of their future university college (indicative of scholarship success) seem to have been as venerated as those sporting the velvet cap of the First XV.²²¹

The school was no means unaffected by the late-Victorian mania for 'athleticism'²²² and early issues of the school magazine, *The Pauline* were full of exhortations to athletic enthusiasm (and disappointed complaints about lack of it).²²³ Certainly achievements after the removal were noticeably improved.²²⁴ Even so, as Edmund

²¹⁹ Coutts-Trotter (1911), p.121. Both Mack (1941), p.123, relying on Marcy (1932), and Jonathan Gathorne-Hardy (1977/1979), p.168, relying on Woolf (1960), incorrectly make St Paul's appear indistinguishable from other public schools in its stress on athleticism.

²²⁰ Sams (1932), pp.15-16. Sams, for example, who entered the school in 1887, commented: 'In those days, there were no organised games. Unless a boy was naturally fond of games and insisted on playing them, he would return home after five o'clock and be left to his own devices.' Marcy (1932), p.31. Marcy, a keen athlete, who attended St Paul's from 1886-1892 (Gardiner, 1906, p.158), remembers how 'little side rugby was played ...under the somewhat casual direction of a member of the First XV, who regarded his job of referee as an infernal nuisance.'

²²¹ Sams (1932), p.16. Sams remarks on his admiration for the 'magnificent demi gods who stalked about the grounds with the black velvet caps and white tassels of the First XV...'. An admiration, however, he ironically undermines, adding 'but somehow the sight of these heroes did not stimulate in me a desire to begin the bottom rung of the Rugby ladder.'

²²² Mackenzie (1913/1960), p.247.

²²³ Mead (1990), p.89.

²²⁴ Bailey, E.S. (1911), p.244.

Savage Bailey, who attended the school from 1889-1894, wrote in his account of school games:

Of course, athletics of any sort can be made one of two things. They can either be regarded as an educational force and developed as such in every possible way, or they can be allowed to take the form of aimless recreation. In its efforts to avoid the adoption of the latter course, St Paul's has had to fight against peculiar difficulties; but the fight has been a successful one.²²⁵

Honey argues that, by the end of the century, the clearest indication that a school was accepted by the public-school community was the degree of regularity with which it competed with other public schools at sport.²²⁶ By the 1890s, this took the form of numerous 'public-school' competitions,²²⁷ and St Paul's engaged regularly in all the major categories.²²⁸ Generally, the school was more successful in individual than team sports,²²⁹ and the gradual addition of on-site sports facilities, such as a gymnasium and swimming pool, seems to have been followed by a marked improvement in sports related to these facilities.²³⁰ Where facilities remained relatively restricted (as in rugby football)²³¹ or no dedicated facilities were provided (such as rowing),²³² the school performed less successfully.

²²⁵ *ibid.*, p.244.

²²⁶ Honey (1977), pp.252-5.

²²⁷ *ibid.* In rifle shooting, rowing, athletics, fencing and gymnastics. All the schools played cricket; football interaction was limited by the number of versions of the game played.

²²⁸ *ibid.*, p.255.

²²⁹ *ibid.*, pp.246-7.

²³⁰ Bailey, E.S. (1911), p.249. St Paul's excelled in boxing, fives and swimming.

²³¹ Stuart (1932), p.151.

²³² *ibid.*, p.248. Despite the school's proximity to the Thames and establishment of a boat club in 1881, the school did not acquire a boathouse and rowing was not well supported.

As at MGS,²³³ Walker's pupils were fully conscious of the qualities competitive team sport was intended to engender, particularly that coveted contemporary virtue '*esprit de corps*'²³⁴ and, while some wistfully regretted the school's limitations in the respect, most recognised this was a direct consequence of the fact that St. Paul's was a day school with more limited time to devote to these activities. Not all pupils viewed this relative lack as a disadvantage.²³⁵

The extent of land and facilities provided for games at secondary schools was evaluated by Clay at the turn of the century. Even at this juncture, he considered playing fields to be a greater concern in a boarding school ('where the whole of the recreation time of the pupils has to be provided for')²³⁶ than in a day school ('where it is not possible to put the same pressure upon boys and girls not naturally fond of games, and who prefer to be at home rather than come back to the school and play.')²³⁷ The former, he argued, required playing fields for 'cricket, football, etc.' as well as 'a considerable area of playground in and around the school building'. While acknowledging the heavy cost of maintenance, he suggested an allowance of '15 to 20 acres' for every 100 pupils, far more, of course, than had been allocated at St Paul's.²³⁸ By that stage, both fives courts and gymnasia had become standard features at boarding schools and most day schools, but Clay, re-iterating the point made half a century earlier by Matthew Arnold,²³⁹ stresses that, due to the emphasis

²³³ *Ulula*, April 1874.

²³⁴ Bailey, E.S. (1911), p.243. Bailey states that the division of boarding schools into Houses effortlessly facilitated this quality, while St Paul's, as a day school, had to stimulate the attribute in other ways.

²³⁵ Bentley (1940), p.47. G.K. Chesterton, for example, at St Paul's from 1887-1892, never took any interest in sport.

²³⁶ Clay (1902/1906).

²³⁷ *ibid.*

²³⁸ *ibid.*

²³⁹ Arnold (1864/1892), p.14.

the English placed on team games, the gymnasium had never taken on the significance it held in Germany.²⁴⁰ In this respect, St Paul's represented a thoroughly English compromise.

The school libraries

By 1906, when Clay was describing the requirements for secondary schools, the library had become 'a very necessary adjunct'. He was clear about its function. It was 'to be used continually by the upper parts of the school, containing all the books of reference that are likely to be wanted' and was 'intended for quiet study' and 'to enable those in the higher forms of the school to learn to use books for themselves, without being told exactly where to look for anything'.²⁴¹ It was not meant for the use of younger pupils, nor was it, as had formerly been the case, merely a collection of (often valuable) books largely available to staff and senior pupils.²⁴² Clay's perspective is underlined by Cyril Norwood and Arthur Hope, who, in their 1909 work *The Higher Education of Boys*, devote an entire chapter to school libraries,²⁴³ laying stress on the fact that a school must be 'well equipped with libraries, if it is to succeed in its highest function.'²⁴⁴ Here, they acknowledge that school libraries had undergone considerable revision in recent years and that 'while we are still far behind Germany and France, great progress has during the last generation been

²⁴⁰ Clay, p.261.

²⁴¹ *ibid.*, pp.137-8. Its use as a room for sixth-form study was, according to Clay, by then widespread in girls' schools.

²⁴² *ibid.*

²⁴³ Norwood and Hope (1909), pp.481-486.

²⁴⁴ *ibid.*, p.481. The Headmaster of Bath College is quoted summarising its objectives as: to help the work of the classroom; to encourage initiative and voluntary study among the boys; to develop individual tastes and aptitudes; to give information about the social, political and intellectual movements of the day; to provide instructive recreation and inspire a love of reading.

made toward this ideal'.²⁴⁵ The main library at St Paul's was not revolutionary, but it was up-to-the-minute.

Both Clay and Norwood and Hope distinguish two types of library, both of which they considered essential. The first, of higher status than the second, should contain the 'best and most representative works in the chief departments of knowledge, excepting English fiction, and particularly strong in books of reference';²⁴⁶ the second should be: 'a lending library, comprehending good novels for boys of all ages and not despising those books of travel and adventure in which the soul of younger boys delights.'²⁴⁷ Clay, looking at the issue from a design perspective, is more specific about how this hierarchy should be expressed in spatial terms, suggesting that the fiction library could be accommodated 'wherever bookcases or shelves can be conveniently put up' as 'the position of their accommodation in the school premises is not of much importance.'²⁴⁸

Though, in the 1880s, St Paul's was by no means in the forefront of library development, the library arrangements at St Paul's, established more than a quarter of a century before these reflections, anticipate their specifications. From its foundation, a school with a distinguished literary and intellectual heritage,²⁴⁹ the school had long had a library.²⁵⁰ In the 1824 building, the library was housed in a large room located immediately adjacent to the High Master's house. Here, boys in

²⁴⁵ *ibid.*, p.481.

²⁴⁶ *ibid.*, p.482.

²⁴⁷ *ibid.*

²⁴⁸ Clay (1902/1906), p.138.

²⁴⁹ Mead (1990), pp.130-135. Former pupils included Samuel Pepys, Samuel Johnson and John Milton.

²⁵⁰ McDonnell (1909), p.406. Located to the north of the school room, the library was, in the context of the scale of the school, a significant room, enlarged by Kynaston to 35ft deep. After Walker's arrival, it was used as a classroom.

the eighth form were allowed to sit during school hours,²⁵¹ with the captain of the school acting as librarian.²⁵² In 1876, however, immediately prior to Walker's arrival, Dr Joseph Hirst Lupton, then Surmaster,²⁵³ was appointed as the school librarian²⁵⁴ and, within 18 months had both catalogued the 3500 books and was making suggestions to the governors for 'the addition of new works, of practical use to the students' and 'works having a special interest as connected with the private history of the school'.²⁵⁵ It is clear from Lupton's report, that even at the City school, the library was intended to have both a pedagogic and archival function, but the move into the new building in West Kensington allowed Dr Lupton to create a well-organised, modern library, where books could be arranged on bespoke shelving, press marked and catalogued.²⁵⁶

That this room enjoyed high status is evident both from its location²⁵⁷ and from its ultimate decoration,²⁵⁸ and Waterhouse's design for it, in the north-west angle of the first floor, afforded 'a pleasant and well-designed room, divided into a series of arches'.²⁵⁹ **(FIGURE 41)** This Library ('The School Library'), which also served as a museum,²⁶⁰ was always intended to allow for expansion²⁶¹ and, over the next 15

²⁵¹ Whyley, F. (1911), p.19, *Reminiscences of St Paul's School Under Dr Kynaston's Rule*, in Gardiner, R.B., Lupton, J. (eds.) (1911).

²⁵² Gardiner, R.B. (1911), p.221. *The School Library* in Gardiner, R.B., Lupton, J. (eds.) (1911).

²⁵³ Watson (2004).

²⁵⁴ Gardiner (1911), p.221.

²⁵⁵ MM, 8th May, 1879. The governors heard a long letter from Lupton, detailing the contents of the valuable collection, including an early translation of Erasmus's *In Praise of Folly*. He recommends adding 'several modern works of immediate use', specifying the lack of Mathematics textbooks, and an autographed copy of Milton.

²⁵⁶ Gardiner (1911), p.221.

²⁵⁷ MM, 22nd November, 1878. Initially, Waterhouse suggested placing the library over the main entrance of the building, an imposing position; ultimately, he dedicated the space of 'two classrooms' to it.

²⁵⁸ See p.308, *below*.

²⁵⁹ Bailey, G. (1911), p.98; Sams (1933), p.71. 'To those of us who had an eye for a charming room, the Eighth Form Library was an aesthetic pleasure.'

²⁶⁰ Gardiner (1911), p.222.

²⁶¹ MM, 21st February, 1878.

years, the number of books rose to 6744.²⁶² During this period, the library remained reserved for the eighth form, who used it primarily for study rather than research.²⁶³

The 'Boys' Library', originally a subscription library, had also been established the year before Walker's arrival,²⁶⁴ but, by the 1880s, Walker asked the governors to take on financial responsibility for maintaining it, with the aim of accumulating '1000 volumes or more suitable for the reading of the younger boys'.²⁶⁵ At the new school, the 'Boys' Library' ('full of thrilling Hentys and adventurous Captain Marryats')²⁶⁶ was run by R.B. Gardiner, who had initiated the idea in 1876, and, unlike its senior, more dignified, counterpart, was housed 'in a rather pokey room or nook under the staircase'.²⁶⁷ Its location, no doubt, emphasised the hierarchy of genres expressed in the curriculum, in which English literature was not taught as a school subject.

The classrooms

As has been shown,²⁶⁸ by the time the rebuilding of St Paul's was under consideration, classroom teaching had already become widespread in contemporary secondary schools, and, within 25 years of the opening of the new school, Clay was able to assert:

²⁶² Gardiner (1911), pp.221-2. By 1909, this had increased to 10,000. Richards (1968), p.17. A new library was built in 1910 as a memorial to Walker.

²⁶³ Sams (1933), p.71. 'Most of us, however, did not appreciate its treasures; there was little time for browsing.'

²⁶⁴ MM, February 29th, 1888.

²⁶⁵ *ibid.*

²⁶⁶ Sams (1933), p.15, p.71. As Sams recalls the books had a brisk circulation and 'there was no attempt to force "belles lettres" on boys who had not acquired the taste for a more advanced form of reading.'

²⁶⁷ *ibid.*

²⁶⁸ See Ch.6, p.216.

the class rooms may be regarded as the units of which a school building is composed, to which the other rooms are subsidiary; and since the teachers and scholars spend the greater part of their time while at school in these rooms, the importance of having them properly lit and ventilated can scarcely be overrated.²⁶⁹

As we have seen,²⁷⁰ originally Walker hoped to keep class numbers to about 20, though with the proviso that classes of about 25 would be less expensive. In a measure no doubt intended to preserve the endowment funds, the Charity Commissioners intervention reduced the projected number of classrooms in Waterhouse's first scheme from 44 to 22,²⁷¹ resulting in a suggested number of pupils per room of 40. To accommodate these large numbers, the dimensions of each room ultimately measured 29ft by 24ft.²⁷² As Clay demonstrates in a comparison of international schools at the turn of the century, this scale was generous for the proposed numbers,²⁷³ and significantly more spacious than the classrooms built to accommodate the same number of boys at City of London.²⁷⁴

It was to appear even more generous,²⁷⁵ when Walker chose to use the classrooms, as he had originally intended, for class sizes of 18-20.²⁷⁶ The Prussian regulations in

²⁶⁹ Clay (1902/1906), pp.53-54.

²⁷⁰ See Ch.6, p.216.

²⁷¹ MM, 22nd November, 1878. Waterhouse originally allowed for 44 classrooms. This, he calculated, would afford accommodation for 900 boys, presuming the remaining 100 were either in the science laboratories or the drawing school, so allowing for just over 20 pupils per classroom.

²⁷² Clay (1902/1906), p.63.

²⁷³ *ibid.*, p.63.

²⁷⁴ *ibid.*, pp.61-63. At City of London, a classroom for 40 boys measured 24ft by 22ft, or 13.5 sq. ft. per head, while St Paul's allowed 17.5 sq. ft. per head. By 1906, the Board of Education's secondary-school regulations stipulated 'no less' than 18 sq. ft. per head.

²⁷⁵ Bailey (undated), p.27. As Cyril Bailey recalled, 'The class-rooms... were far too large for the forms of 20 or 30 which a good teacher and individual attention demand.'

²⁷⁶ Clay (1902/1906), p.55. Walker managed this by admitting only about 600 boys to the school.

the early 20th century allowed for classes up to 30 in the upper divisions and up to 50 in the lower divisions,²⁷⁷ but Clay found that by then, in England, 'it is generally agreed that one teacher cannot properly manage and regularly teach a larger number than 30... generally speaking, a class of from 25-30 may be considered a standard size.' 'Taking 50 of our leading schools' (i.e. those that appeared in the Public Schools Year Book), he found an average of under 16 boys to a master,²⁷⁸ so Walker's subversive approach would appear to have brought St Paul's into line with the public-school mainstream.²⁷⁹

It was not, however, just the scale of the classrooms, but the way in which they were lit, ventilated²⁸⁰ and arranged that attracted comment. Clay praised the classrooms at St Paul's as 'excellently lit',²⁸¹ and Waterhouse had gone to considerable effort to make this the case, ensuring all classrooms were built on one side of a corridor only.²⁸² As more than one pupil later complained, however, illuminated from the north, most were chilly and sunless.²⁸³ Waterhouse had, of course, arranged them in the German manner, consecutively in long corridors,²⁸⁴ and, while Clay may have found this less than satisfactory, it was an arrangement that was to become ever more widespread over the course of the next century.

²⁷⁷ *ibid.*, p.54.

²⁷⁸ *ibid.*, p.55.

²⁷⁹ *ibid.* Class numbers were comparable to those at Westminster (20), Merchant Taylors' (25) and Rugby (25).

²⁸⁰ Bailey (undated), p.33. Waterhouse furnished all the classrooms with several types of window to enable those using them to control the ventilation. They were later referred to as 'casement', 'winow', 'slit', 'upper'.

²⁸¹ Clay (1902/1906), p.174.

²⁸² MM, 30th January, 1880. Waterhouse originally toyed with the idea, implemented at City, of putting classrooms on either side of a central corridor, but abandoned this due to 'the impossibility of getting adequate light and ventilation to the centre of the building.'

²⁸³ Bailey (undated), p.27. Bailey states that they 'hardly during the whole day got a ray of sun – I think the fetish of a north light then held sway...'. Clay (1902/1906), p.82. Waterhouse's contemporaries, like Robson, set out clearly the argument for northern-lit classrooms, but by the early 20th century the preferred direction was south east and south.

²⁸⁴ *ibid.*, p.170. Also the case at City.

OTHER FACILITIES AND DESIGN FEATURES

There were other aspects of Waterhouse's plan, which, because we now take them for granted, are easy to overlook, but some features represented an equally radical departure in terms of the school buildings of the period.

The corridors (FIGURE 42)

As noted above, St Paul's was ultimately built on a corridor system rather than a central-Hall system, and while corridors may have been more expensive,²⁸⁵ noisier,²⁸⁶ and less easy to supervise,²⁸⁷ they afforded Walker the ideal stage for his personal style of headship, a style which Vanity Fair magazine in a pen portrait of 1901 described as 'of the peripatetic school'.²⁸⁸ As Cyril Bailey recalls, Walker would 'pace up and down the corridors, button-holing any master or boy he came across and occasionally darting into a class-room, usually apologising for making a mistake.'²⁸⁹ **(FIGURE 43)**

The 19th century, particularly the 19th century at the English public school, was notoriously the age of corporal punishment, with the cane wielded liberally by both staff and prefects,²⁹⁰ but another disciplinary mechanism, which later became

²⁸⁵ Clay (1902/ 1906), pp.146-7.

²⁸⁶ *ibid.*, p.146. Clay quotes 'the headmaster of a Secondary Day School' insisting they encouraged 'hustling, stampeding, running races and bullying'.

²⁸⁷ *ibid.* 'A headmaster standing in the Hall can as a rule locate any undue disturbance.'

²⁸⁸ Vanity Fair, 27th June, 1901. It suggested 'Solvitur ambulando' ought to be his motto.

²⁸⁹ Bailey (undated), p.28. This habit has been confirmed by others (Shepard, 1961/2002, p.71; Bentley, 1940, p.57; Snowden, 1911, p.76.)

²⁹⁰ Bamford (1967), pp.66-67; Honey (1977), pp.196-203.

commonplace, i.e. 'being made to stand in the corridor', could only exist once corridors themselves had become a feature of school design.

The long, wide, brightly lit²⁹¹ corridors designed by Waterhouse, were eventually lavishly ornamented with clear markers of the school's 'core values',²⁹² and they also suited Walker's disciplinary style, which always operated more on force of personality than force of hand.²⁹³ In consequence, the corridor became an obvious location to keep a tight control on miscreants. Ernest Shepard, for example, recalls the terror of the head's descent:

The worst punishment that could be inflicted upon any boy was to be sent from the classroom to wait outside until recalled. He (Walker) would sail majestically down the corridor, and it was useless for any boy doing penance outside a door to try and hide behind the lockers. He was spotted from afar and the enemy bore down on him. With a growl, he was asked what he was doing there. A stammering explanation was sure to be cut short with 'Speak up'. Then, 'What's your name?'. The door was flung open and he was sent to his place. I think most of the masters dreaded these visitations as much as we did.²⁹⁴

²⁹¹ Bailey (undated), p.27. Cyril Bailey recalls the south-facing corridors 'bathed in sunshine', thus, of course, mitigating against Clay's fear of bullying in dark corners.

²⁹² Clay (1902/1906), p.51. By the early 20th century, this decorative and promotional function ('adding to the attractive appearance of the school') was becoming widespread and, as Clay recommends, corridors ('as wide as possible'), 'can be used as a sort of picture gallery for any prints, engravings or pictures that the school may possess. Notice boards with school notices are frequently found there. In schools where special attention is paid to drawing and painting, it is very common to find a selection of the best work done during the week pinned upon large boards hung in the corridors, providing not only an incentive to work, but a pleasant decoration.'

²⁹³ Snowden (1911), p.75. Snowden states: 'his punishments were not many, and as time went on I think he came to believe less and less in the permanent effects of severity.'; Marcy (1932), p.49. Marcy offers a slightly different perspective. While agreeing that Walker personally never caned boys, Marcy claims '*portering*' (in which the school porter delivered 12 strokes in the presence of the head) did take place, though he admits he never witnessed this.

²⁹⁴ Shepard (1961/2002), p.71.

It was in the corridor that Walker seems to have also carried out the more positive aspects of his 'pastoral care', stopping students here for praise or advice.²⁹⁵

At St Paul's, Waterhouse was able to use the corridors, too, to resolve the pressing question of cloakrooms, one of particular concern for both teachers and architects of the period.²⁹⁶ Thick woollen clothing would often dry slowly, presenting problems of humidity and odour. Cloakrooms isolated from the main classrooms could and did open opportunities for pilfering and bullying as well as concerns about crowding at the start and end of the day; while cloakrooms next to classrooms restricted teaching space and were potentially both untidy and malodorous.²⁹⁷

Waterhouse's solution at St Paul's was to take the idea of individual lockers long established at the school,²⁹⁸ and furnish the corridors with personal lockers for every boy.²⁹⁹ These were of sufficient height to allow for pegs for coats and umbrellas, while providing a shelf above for books, etc. Raised three inches from the floor, the bottoms of the lockers were perforated to enable wet umbrellas to drain into a channel underneath, while a hot water pipe running at floor level enabled clothes to

²⁹⁵ Sams (1933), p.18. Sams recalls the head speaking to him only twice, once when he had won a scholarship, when the 'old Man' button-holed me in the corridors, and as usual roared, "Well boy! nothing succeeds like success". Bentley (1940), p.57. Bentley recounts a similar experience. 'He did some of his best work, I should say, by suddenly buttonholing in a corridor... some boy who had imagined himself to be unknown to "the old Man", and booming into his ear some shrewd piece of advice, or not unkindly reproof, or smashing censure, that went right home and stuck there, coming from such a source and in such a way as it did.'

²⁹⁶ MM, 21st February, 1878. These had been requested in Walker's original brief; Clay (1902/1906), pp.128-134.

²⁹⁷ Ibid., pp.128-9, Pl.112-115. City of London introduced a separate cloakroom on the basement level.

²⁹⁸ Mewburn (1911), p.4. According to Chilton Mewburn, a pupil between 1844-1849, four tiers of lockers, not full height, served as seating and storage. MM, 22nd November, 1878. Waterhouse, seems to have envisaged this arrangement from the outset.

²⁹⁹ Clay (1902/1906), pp.131-132.

dry more quickly. By this ingenious design, only feasible in a school with broad corridors, he was able to resolve many of the disadvantages of other schemes.³⁰⁰

The dining hall (FIGURE 44)

Though dining halls had long been essential in boarding schools, the large third-floor dining hall created at St Paul's was then a novelty in a day school.³⁰¹ Its inclusion allowed the school to cater for those travelling from a much wider catchment into an area with few opportunities for eating outside the gates, and also facilitated discipline since pupils could remain on site throughout the day. Within 20 years, the day-school dining hall had become the norm.³⁰² Its location within the school building was, however, not yet fixed, and Clay, discussing 'the most complete and excellent arrangements' ³⁰³ at St Paul's ('where over 200 boys dine every day'), commends Waterhouse's decision to put it on the top floor as this ensured 'the absence of any chance of the smell getting into the school part of the building, since effectual ventilation is easy'. A further advantage, as Clay also notes, was that this location created a far more cheerful room than a dining hall in the basement, though most new-built schools of this date were to favour the latter position as providing easy access for deliveries and staff.

The High Master's study and staff rooms

³⁰⁰ *ibid.*, p.51. It was an arrangement widely copied.

³⁰¹ Bentley (1990), p.75. The new MGS building, planned before Walker left, had a large dining room, as did the new City of London building.

³⁰² *ibid.*, p.135.

³⁰³ *ibid.*, pp.135-6.

Both the headmaster's study and the two staff rooms provided in the final plan would have been new departures in a day school in the 1880s, and the location of the headmaster's study, next to the front entrance, set a much-followed precedent.³⁰⁴ The staff common room, a requirement once the number of a teaching staff had increased beyond the original handful, was also a new initiative, which by the early 20th century had become a given.³⁰⁵

Despite the fact that St Paul's was a day school, the High Master, as in Colet's original statutes,³⁰⁶ was furnished with ample personal accommodation adjoining the site. As at every stage in the school's history, this would have been considered a considerable benefit in kind, and, by the 19th century, would have somewhat mitigated the large discrepancy in salary between the head of a day and the head of a boarding school. The house was sufficiently large for it to be later developed into a hotel,³⁰⁷ and its noble proportions and elegant interiors would have left no doubt about the status of the head.

The interior design (FIGURE 45/6)

³⁰⁴ *ibid.*, p.134.

³⁰⁵ *ibid.*, p.37.

³⁰⁶ Colet (1518), p.273.

³⁰⁷ <http://www.stpaulhotel.co.uk/> (downloaded 5.6.2018).

Waterhouse was an architect who took interior design as seriously as all other aspects of his work,³⁰⁸ generally providing detailed schemes for everything from light fixtures to tiling and furniture in his domestic,³⁰⁹ public³¹⁰ and educational buildings,³¹¹ where he dealt in a rich palette of materials and decorative effects.

It is, therefore, notable that at St Paul's (no doubt due to the Charity Commissioners' strict stipulations about budget),³¹² he was to be minimally involved in the interior design. At the time of the opening, the interiors were sparse and utilitarian,³¹³ with even the main public rooms, such as the Assembly Hall, simply fitted out with plain plastered walls and clear glass windows,³¹⁴ none of the furniture was bespoke.³¹⁵ Even the casual observer would have appreciated that not a penny of endowment money had been wasted on fripperies.

Those involved with St Paul's clearly felt something more reflective of the school's history and status was desirable and, from the late 1880s onwards, many of the rooms received additional ornament in the form of stained glass, mosaics, wood paneling and sculpture, financed not out of the Coletine estate, but through individual

³⁰⁸ Cunningham and Waterhouse (1992), pp.173-179.

³⁰⁹ *ibid.*, p.174. This would have been Lord Selborne's experience, for example, at Blackmoor, where Waterhouse designed all the furniture.

³¹⁰ *ibid.*, pp.174-5, p.176, p.177. Manchester Town Hall and the Natural History Museum being notably complete examples.

³¹¹ *ibid.*, p.175, p.174. At Girton College, Cambridge, Waterhouse discussed with the founder Emily Davis details such as the wallpaper, but, even in more modest projects, like Reading Grammar School, he was responsible for the design of the classroom desks.

³¹² *MM*, 20th November, 1879.

³¹³ Bailey, G. (1911), p.96; Richards (1968), p.10.

³¹⁴ *The Builder*, 24th January, 1891. *Presidential Address to RIBA students*. In general, Waterhouse was not fond of contemporary stained glass, finding 'the drawing bad, the sentiment mawkish, and the colour, which is the real excuse for shutting out the cheerful light of day, (is) the worst thing about these stained-glass windows'.

³¹⁵ *MM*, 22nd July, 1884. Even the walnut boardroom table and chairs were bought off-the-peg from the furniture shop Maples, with the Minutes noting that each chair was only 42s and 6d, 'a very moderate cost for such a chair'.

donations from staff, governors, pupils, and others associated with the school.³¹⁶ These later additions represent what might be described as a purposeful programme of ‘branding’, celebrating both the school's current triumphs³¹⁷ and its illustrious history,³¹⁸ intended, no doubt, to underline the school's rightful place amongst the leading public schools of the day.³¹⁹ They undoubtedly went well beyond the Clarendon Commissioners’ original recommendation that: ‘The Memories of the past would be preserved by the existing, and perhaps a few additional, busts of distinguished Paulines.’³²⁰

In terms of subsequent secondary-school design, the location of this costly additional ornament is pertinent. In the City building of 1824, the walls of the schoolroom had been adorned with oval tablets, recording the names and dates of famous Old Paulines.³²¹ In the West Kensington building, on the other hand, the classrooms,³²² science laboratories, and dining hall³²³ remained unadorned, while decoration was focused on the ‘public space’, i.e. the Assembly Hall, the main library,³²⁴ the High

³¹⁶ Richards (1968), p.12; McDonnell (1909), p.436.

³¹⁷ Bailey, G. (1911), p.96. The names of captains of the school and holders of school exhibitions were displayed on marble slabs in the ground-floor corridors.

³¹⁸ *ibid.*, pp. 96-7. There were repeated visual references to the founder, celebrated old boys and staff.

³¹⁹ Norwood and Hope (1909), p.524. As H. Lionel Roberts was to point out biting just a few years later, ‘Public Schools pride themselves on their traditions; those that are not ancient in years manufacture the modern antique.’

³²⁰ CC, Vol.1, Ch.5, p.199. Nash (1949/1988), p.63. Paul Nash recalled the ‘immense images that overwhelmed the walls. ...monster representations in mosaics... of the more famous old Paulines, from Milton to Marlborough’.

³²¹ Mewburn (1911), p.4; McDonnell (1909), p.441. It can be assumed that these were the ‘curious little black “shields”, the only decorations of the old school brought to the new.’

³²² MM, 22nd July, 1884. The classrooms by this juncture were no longer public space. These were lined instead with up-to-date teaching aids, which included ‘continuous blackboards all around the walls’, and ‘where not applied...rods up which maps can be hung.’ The classrooms were also furnished with a master’s desk in pitch pine, a platform for the master’s desk, a cupboard for stationery, and 24 boys’ desks. The blackboards, obtained in Paris, were ‘somewhat expensive’, costing 13s 6d a yard.

³²³ McDonnell (1909), p.441; Bailey, G. (1911), p.98. Both Michael McDonnell and Gervase Bailey consider this a lack.

³²⁴ *ibid.*, The windows, in an extension of the historicising tendency found elsewhere, were filled with stained glass illustrating scenes in the life of John Colet and busts of previous High Masters.

Master's study/Board Room³²⁵ and the ground-floor corridors.³²⁶ The decoration of the Assembly Hall is of particular note, since this room was the public face of the school on official occasions. Here, between 1891 and 1901,³²⁷ the visitors' gallery at the northern end of the room was rebuilt in oak 'to a Jacobean design' and stained glass was introduced into the windows.³²⁸ The iconography of the new decoration was coherent and again reflective of the school's 'branding'.³²⁹ All but four of the 14 windows depicted armorial bearings. In the upper part of each, the coat of arms of the school were coupled with those of the universities, individual colleges, the Mercers' Company and the City of London; while the lower lights depicted the arms of distinguished Old Paulines.³³⁰ On the south wall, mosaic panels showed St Paul and John Colet, while, above these, was a mosaic of the child Christ in the Temple, seated in 'the attitude of one teaching',³³¹ an echo of the 'beautiful wrought figure' described by Erasmus in the original school building.³³² Further mosaic panels, inserted between the three end windows, depicted significant figures in the school's development (Erasmus; the first High Master, William Lily; the old boy John Milton; and Viscount Campden, a notable benefactor in the 17th century).³³³

Ultimately, the most enduring addition of this period, however, was a work of considerable artistic merit, the imposing statue of Dean Colet surrounded by two

³²⁵ *ibid.*, p.97.

³²⁶ Richards (1968), pp.12-13. In 1888, a large collection of casts of ancient sculpture was placed along the tops of the lockers, while a full-size cast of the Laocoön was placed in the entrance hall, facing the front door. Between 1889-1894, in a scheme done to Robert Harris's design, the walls were covered with marble panels, framed in majolica tiles, containing the names of Leaving Exhibitioners and Captains of the School. In 1892, stained-glass windows were inserted containing the coats of arms of successive High Masters and their dates.

³²⁷ *ibid.*, p.15.

³²⁸ Bailey, G. (1911), p.96.

³²⁹ *ibid.*, p.97. Here, the heraldic material was assembled by R.B. Gardiner, the school's librarian.

³³⁰ *ibid.*

³³¹ McDonnell (1909), pp.435-436.

³³² Erasmus of Rotterdam (1519), p.27.

³³³ McDonnell (1909), p.163.

scholars, designed by Hamo Thornycroft, RA,³³⁴ which was positioned in front of the school in 1902. Donated by a former governor,³³⁵ it had been exhibited at the Royal Academy in 1901, and even today, in the school's current location in Barnes, remains a powerful link to the school's origins. **(FIGURE 47)**

THE CREATION OF 'A GREAT DAY'³³⁶ SCHOOL' IN LONDON³³⁷

The dominant narrative told by education historians about the development of secondary education in England in the last quarter of the 19th century is that boarding schools became the preferred and prevalent form for middle-class boys.³³⁸ Here, daily life was structured round chapel, games, prefects, and the study of the classics; the moral compass firmly pointed at character building, esprit de corps and leadership, qualities required to run an empire. The education provided was 'irretrievably unintellectual'.³³⁹ In 1909, four years after Walker's retirement, Cyril Norwood described the product of these schools as: 'a race of well-bodied, well-mannered, well-meaning boys, keen at games, devoted to their school, ignorant of life, contemptuous of all outside the pale of their own caste, uninterested in work, neither desiring nor revering knowledge.'³⁴⁰

³³⁴ Bailey, G. (1911), p.99.

³³⁵ Richards (1968), p.10.

³³⁶ McDonnell (1909), p.428. St Paul's in West Kensington also had about 80 boarders, mainly boys with parents in 'India, the colonies or abroad'.

³³⁷ Coutts-Trotter (1911), p.121; Norwood and Hope (1909), p.30. The history of education in this book devotes a section to the 'Founding and Revival of Great Day Schools'. The schools mentioned are: St Paul's, Merchant Taylors', Dulwich College, King's College School, University College School, MGS, King Edward's School Birmingham, and the Grammar schools in Leeds, Nottingham, Bradford, and Bristol.

³³⁸ Simon (1965), pp.109-111. (Also, Mack, 1941; Newsome, 1961; Bamford, 1967; Simon, B. and Bradley, I. (eds.), 1975).

³³⁹ Simon (1965), p.100. Henry Salt, who made this remark, had been a master at Eton. Other contemporary commentators, however, shared his view.

³⁴⁰ Norwood and Hope (1909), p.187. At the time, Norwood was head of the day school Bristol Grammar School, but went on to head two leading boarding public schools, Marlborough College and Harrow; Arthur Hope was 'late assistant master at Radley College', a boarding public school.

What seems to have been largely ignored by later historians, however, is that during this same period, there was a parallel burgeoning of prestigious urban day schools,³⁴¹ whose priorities differed significantly from those of the leading boarding schools. These schools, also recognised by contemporaries as ‘public schools’,³⁴² produced pupils who went on to study at Oxford and Cambridge in equally high (or higher) numbers,³⁴³ and subsequently formed a critical core of the ‘metropolitan intellectual elite’. It was these schools, rather than Eton and Harrow, which laid the basis of modern secondary education, establishing the foundations of high-quality teaching in the STEM subjects and insisting on the highest academic attainment, rather than placing disproportionate emphasis on the moral and social attributes given prominence at the leading boarding schools.³⁴⁴

By the turn of the 20th century, the day-school model had, at least for leading educational theorists like Cyril Norwood and Arthur Hope, become the preferred model. In their influential book *The Higher Education of Boys in England*, which addressed the reform of secondary education, recommended that the day school was like likely to and should become ‘the increasingly predominating type of English higher (secondary) education, by reason of its combination of liberal study and

³⁴¹ *ibid*, pp.53-54. By 1909, there were 97 English schools represented at the HMC, considered a defining factor of recognition as a public school. Of these, 58 were boarding schools educating 18,000 boys, 39 day schools, educating 13,500 boys. Between 1904 and 1909, these two categories of school together won 90 per cent of the open scholarships to Oxford and Cambridge.

³⁴² Percival (1969), pp.86-87. By the 1880s, all the leading day schools were members of the HMC.

³⁴³ Honey (1977), p.245. Of the 22 schools listed by Honey as winning 20-100 scholarships to Oxford and Cambridge between 1885-1892, 10 were urban day schools. As well as St Paul’s, these schools included: Merchant Taylors’; MGS; Dulwich College; Bradford Grammar School; King Edward School, Birmingham; Bedford School; St Olave’s, Southwark; King Edward’s School, Bath.

³⁴⁴ Mack (1941), pp.129-30. According to Mack, the objective of Edmond Warre, headmaster of Eton from 1884-1905, was: ‘for boys to acquire moral health, which meant chiefly honesty, loyalty, and courage...they would then... serve their country unquestioningly, honourably and effectively.’

contact with life.' In 1909, they advocated that day schools 'merited the fullest measure of state and local support.'³⁴⁵

Of these schools, St Paul's, as envisaged by Walker and the Mercers and given physical form by Waterhouse, was undoubtedly the outstanding example, perceived, at least by Walker, as having parity with the leading boarding schools. (As a former pupil, Victor Coutts-Trotter, wrote in 1911: 'A great day school was to him a thing with its own ideals and its own place in the education of the nation; and to him that place was the foremost place').³⁴⁶ Though Walker rarely discussed the relative merits of the day and boarding system, 'he often admitted his astonishment that the great mass of parents of the upper classes should accept as a matter of course a system which removed their sons from their care and companionship at a tender age.'³⁴⁷ His leaving speech of 1905 summarised his perspective: 'We strive, not without success, to make our boys intellectually strong, industrious and loyal, and as far as man can do so, morally pure and upright. The rest we are forced to leave – and I do not regret it - to fathers and mothers and the influence of the home.'³⁴⁸

As Harold Perkin has convincingly argued, the mid-century reforms at Oxford and Cambridge, resulted in institutions which embodied middle-class values and were

³⁴⁵ Norwood and Hope (1909), p.550, p. 28. At this juncture, while acknowledging the continuing attraction of boarding schools, they condemned them for their 'heightened sense of class distinction'; 'increasing proneness to shirk the trouble of keeping boys at home and collaborating with a day school in their education'; and their 'fetish-worship of games', which were given precedence over work.

³⁴⁶ Coutts-Trotter (1911), p.121.

³⁴⁷ *ibid.*, p.121. Something he himself resisted. Cholmeley, R.F. (1912). His only son, the Rev. Richard Johnson Walker, attended St Paul's.

³⁴⁸ Coutts-Trotter (1911), p.121.

aimed at furthering professionalism,³⁴⁹ and, as the professional middle class became increasingly dependent on education and paper qualifications, a leading day school could provide the means of fulfilling their aspirations, without the cost of a boarding school³⁵⁰ or its associated hazards.³⁵¹ By the final quarter of the 19th century, many parents shared Walker's convictions that the pastoral care at home was preferable to the delegated care of a boarding school, even where they could afford to send their children away,³⁵² and by early in the next century, H. Lionel Rogers,³⁵³ Assistant Master at Radley College, was expressing the (presumably by then widespread) view that boarding itself was, in fact, **educationally** disadvantageous:

For though the masters gain control, and the boys in health, they are both thrown emphatically out of normal relations by their barrack existence... Of the boys, it must not be forgotten that they are removed from home influences at confessedly the most impressionable age, and thrown into hourly relationship with an army of equally immature and impressionable fellows. Admirable as this may be from the point of view of friendships and amusements, for education it is a loss. The informal contact of boys with

³⁴⁹ Perkin (1989/1990), p.369. The reforms resulted in universities operated by career dons, who prepared the sons of the landed and professional classes for careers in public service, including politics, the home and Indian Civil Services, colonial government and the liberal professions.

³⁵⁰ Bailey (undated), p.31. Cyril Bailey, for example, recalls that his barrister father 'exchanged the amenities of Sevenoaks for the education of St Paul's and the saving effected by the absence of boarding fees'; (Marcy, 1932, p.2) while the barrister father of William Nichols Marcy (one of seven children), 'determined to send me to a school with the hallmark of a public school without the expense attached to a boarding school'.

³⁵¹ Hughes, M.V. (1934/1977), pp.55-6. *A London Childhood of the 1870s*, Oxford: Oxford University Press. Molly Hughes, the daughter of a stockbroker, had four brothers. Though the eldest was sent to board at Shrewsbury, a Clarendon School, her father, disappointed with its narrow curriculum and harsh discipline, sent his three younger sons to Merchant Taylors'.

³⁵² Anon. (1911), p.140. *Frederick Walker at the New School* in Gardiner, R.B., Lupton, J. (eds.) (1911). An anonymous writer commented: 'Many parents – and these are probably an increasing class – who could have afforded to send their sons to one of the great boarding schools preferred to have their boys at home attending a day school.'

³⁵³ Norwood and Hope (1909), p.xiv. Lionel Rogers, who had previously worked at Lancing College, another boarding public school, supplied the chapter on '*The Reform of the Public Schools*'.

mature minds that is the rule in the home is the exception in the school; the exception, therefore, the consequent sharpening of wit.³⁵⁴

For those for whom hard work and professional qualifications were their objective, days schools offered numerous advantages, chief amongst which were: the fact that boys came into daily contact with their fathers' in their professional capacity; parents were able to oversee homework and monitor progress; and boys were not distracted by an obsession with games.³⁵⁵ As I.M.B. Stuart, who had taught at both St Paul's and Harrow, pointed out: 'The majority of Paulines have an "urge" and incentive to work in a manner not found in the average Harrovian'.³⁵⁶

Building social connections was not the primary objective of St Paul's parents, nor were they interested in developing Muscular Christians - at St Paul's, there was no chapel, no long-remembered sermons by the head,³⁵⁷ no compulsory games.³⁵⁸ Leadership was not handed over early to the boys, and Walker never required prefects to act as a disciplinary police force.³⁵⁹ What he did provide was a consummate education for those looking to make their mark in the world, not through the management of inherited estates or the influence of powerful relations,³⁶⁰ but, like Walker himself, through their own disciplined endeavours. The fact that St.

³⁵⁴ Lionel Rogers (1909), p.524, in Norwood and Hope (1909).

³⁵⁵ Stuart (1932), p.149, p.163, p.173, p.141.

³⁵⁶ *ibid.*, p.149.

³⁵⁷ Marcy (1932), p.85. '*It was rumoured that Walker was not quite orthodox in his views.*' (See Ch.6, p.187, n.85.)

³⁵⁸ Stuart (1932), p.173. Stuart, half a century on from Walker's initial brief, reflects the High Master's order of priorities. "'Games should come second to work.'" They should be regarded as nothing more than a means to keep the body fit – to make the mind alert and active for the great battle of life...'

³⁵⁹ Marcy (1932), p.81. Marcy comments on two features of school life in a day school that differed from that in a boarding school: fagging and the prefect system.

³⁶⁰ Stuart (1932), p.149.

Paul's was a day school undoubtedly aided him in this goal. As Coutts-Trotter notes: 'the school's location in a salubrious residential suburb well-served by public transport, as well as its generous scholarship provision, furnished it with a large, well-educated clientele from which it could pick and choose, allowing it to maintain a high standard on admission.'³⁶¹

Through the design and use of its buildings, St Paul's also promoted an alternative model of masculinity to that projected in the public boarding schools. The latter, distinguished by their ample playing fields and architecturally prominent chapels, operated as small, intense communities, where boy-power prevailed in officially-endorsed hierarchies. This produced a world where those who shone as team captain or school prefect were 'the most important men'³⁶². Its vision of masculinity lay in subsuming the self to the team; its status in an early entitlement to discipline and organise others. It demanded a 'robust'³⁶³ approach to survival. The day-school model, adapted to softer familial influences beyond the school gates and directed towards the practicalities of working life, presented a very different perspective. Here, university-like buildings, provided a scholastic environment where 'swottishness'³⁶⁴ was not only accepted but sought after, and boys were revered by other boys on the basis of exam rather than sporting success. In this environment 'esprit de corps' attracted only passing notice, and 'mis-fits',³⁶⁵ like G.K. Chesterton,

³⁶¹ Coutts-Trotter (1911), p.140.

³⁶² Stuart (1932), p.142

³⁶³ *ibid.*

³⁶⁴ Chesterton (1936/59), p.68

³⁶⁵ Stuart, p.137

or minority ethnic groups, such as the many Jews who attended the school,³⁶⁶ were not only tolerated but respected.³⁶⁷

As such, the school conceived by Walker and realised by Waterhouse became the archetype of a new type of school. It was certainly not the only example. Dulwich College, designed by Charles Barry the Younger ten years earlier, and City of London, built simultaneously at considerably greater expense,³⁶⁸ also by well-established architects, provided strong architectural expressions of similar priorities,³⁶⁹ but St Paul's represented the most masterly synthesis of this new educational order; it was its sophisticated planning above all which provided the template for 20th-century secondary schools once responsibility for these were taken over by the state in the wake of the Balfour Education Act.³⁷⁰

Its influence as an architectural model was no doubt furthered by the renown of its architect. As President of the RIBA from 1881 to 1891, Waterhouse was not only in a strong position to make his views on design felt, he himself acted as an assessor in numerous architectural competitions and was able to nominate assessors for competitions in which he was not directly involved.³⁷¹ As Robert Harper comments:

³⁶⁶ Chesterton (1936/59), pp.70-71. Solomon, a friend of Chesterton at school, became Professor of Latin at London University.

³⁶⁷ *ibid.*, p.70.

³⁶⁸ Douglas-Smith (1937/1965), p.217.; Hinde (1995), illustrated p.62-63. This was partly due to the cost of its site, but the internal finish of the rebuilt school (listed in 1969), with its carved and panelled 'Great Hall', was of considerably higher 'spec' than St Paul's.

³⁶⁹ Further London examples were to follow. Hinde (1994), pp.47-48. King's College School, significantly less well funded than St Paul's, moved into a new building in Wimbledon in 1899, designed by Banister Fletcher, then Professor of Architecture at King's College. Watson (2007), University College School also transferred to a new building in Hampstead in 1907 prominently featured in Clay (Pl.73-77.)

³⁷⁰ Reeder, D. (1987), pp.143-5. *The Reconstruction of Secondary Education in England, 1869-1920*, in *The Rise of the Modern Educational System, Structural Change and Social Reproduction, 1870-1920*, Muller, D.K., Ringer, F., Simon, B. (eds.), Cambridge: Cambridge University Press.

³⁷¹ Harper (1983), p.xxiv.

‘We must ask ourselves to what extent entrants for architectural competitions prepared their designs with the deliberate intention of gaining his attention and, therefore, pose the critical question: “to what extent (did) Waterhouse’s assessment of many competitions affect the course of architecture towards the end of the 19th century?”’³⁷² In the case of secondary schools, the answer much surely be immeasurably.

By the turn of the 20th century, the day-school model had, at least for leading educational theorists like Cyril Norwood and Arthur Hope, become the preferred model. In their influential book *The Higher Education of Boys in England*, which addressed the reform of secondary education, they concluded that the day school was likely to - and should - become ‘the increasingly predominating type of English higher (secondary) education, by reason of its combination of liberal study and contact with life.’ In 1909, they advocated that day schools ‘merited the fullest measure of state and local support.’³⁷³

CONCLUSION

The final data chapter explored the way the building was used on completion as well as how it was altered in light of changing academic and social requirements in the twenty years after its construction, a period during which St Paul’s became the foremost academic school in the country.

³⁷² *ibid.*

³⁷³ Norwood and Hope (1909), p.550, p. 28. At this juncture, while acknowledging the continuing attraction of boarding schools, they condemned this type of school for its ‘heightened sense of class distinction’; ‘increasing proneness to shirk the trouble of keeping boys at home and collaborating with a day school in their education’; and their ‘fetish-worship of games’ at the expense of work.

Here, I demonstrated that the Waterhouse-designed building provided the school with the physical means to deliver a considerably expanded curriculum and effectively synthesise a scientific and classical education. Over time, it also proved unusually flexible when shifting requirements for professional advancement (such as an increased demand for qualifications in engineering and medicine) required modifications to the internal arrangement of space.

This chapter also looked at the impact the design had in a broader context, addressing its contemporary critical reception and its longer-term role in the evolution of secondary-school education. It recognised that, as the first major public building in a rapidly developing suburban landscape, the Waterhouse-designed school confidently trumpeted the status of the education the school offered, and that its collegiate-like design underlined the aspirational significance of secondary education itself, a consumer good of increasing importance to the urban middle class. This status was not initially reflected in the interior design but, as I have demonstrated, in the two decades after the building opened, the end users added decoration to reflect the original message conveyed in its choice of architect and imposing external appearance.

Finally, this chapter stressed that Waterhouse's marriage of a number of new functions into a convincing whole was to act as a template for a wide range of secondary schools in the early 20th century, and that the new school building made a significant contribution to Frederick William Walker's ambition to create a leading

public day school, providing a powerful alternative model of elite education to that offered by the public boarding schools.

What does the account of the outcome of the rebuild and the way the building operated between 1884-1905 contribute to the study of history?

In this chapter, the micro-historical approach was used **‘to tie the micro to the ‘macro’ and ‘go beyond a critique to a broader understanding’**. By employing contemporary and later commentary related to the school but not generated by the school, it was possible to see how the design of St Paul’s fitted into the broader context of secondary-school design as this developed in the last quarter of the 19th century, a period which saw a seismic shift in the understanding of both the nature of secondary education and the most suitable accommodation required to house it.

By using this methodology, it was also possible to demonstrate that a building, whose plans and elevations were envisaged and implemented at a fixed point in time, continued to adapt and evolve according to the emphasis placed on specific activities by later inhabitants. This was particularly evident in the shifting space allocated to the study of science. Equally, as the demand for these requirements were imposed and/or adopted elsewhere, the ideas engrained in the initial building and validated by the external success of the pupils instructed within it, encouraged others to see it as a model.

The micro-historical approach helped clarify that those responsible for dictating the form of a building were unable to control whether the building would be used according to their original intentions. This was made particularly evident in the way that St. Paul’s, in direct opposition to the Charity Commissioners’ requirements for

school intake and class numbers, limited its intake to ensure it could implement the education it saw fit.

Finally, the methodology proved fruitful in demonstrating how, by triangulating visual and written sources, a new perspective on use can be obtained.

CHAPTER 9: CONCLUSION

INTRODUCTION

This thesis was prompted by conflicting assumptions expressed by 21st-century policy makers about the role played by architecture in secondary education. By undertaking a historic case study, I hoped to explore in greater detail the rationale for decisions taken about architecture at an individual school and, through this, gain greater insight into how these decisions affected both the education provided at this particular school and, by a comparative approach, at schools elsewhere.

In reviewing the secondary literature, I argued that: the existing literature about school buildings largely omits the link between secondary-school-building design and outcome; little has been published relating to hiring school architects and how these architects work to briefs which balance individual school requirements and external policy: and, finally, that secondary-school buildings have received only limited attention regarding their architectural status within the wider built environment.

This led to the formulation of four research questions ('Who were the key decision-makers in the design of the new building and what role did each play in that process?'; 'How did the key decision-makers develop an effective brief to ensure that new buildings met appropriate needs?'; 'What role did the choice of architect play in determining the final outcome?'; 'How was the resultant school building viewed by those that used it and those in the wider community?'). In this concluding chapter, I analyse the ways that my research addresses the questions raised, and also discuss

the value of taking a microhistorical approach in examining the data. I conclude the thesis by suggesting new avenues for future work developing out of my analysis.

THE RESEARCH QUESTIONS REVISTED

With the above questions in mind, the first data chapter examined the background to architectural decision making in secondary schools in England during the mid 19th century. It detailed how public policy and individual actors influenced ideas about the form, function and siting of school buildings particularly as these related to curriculum development and the requirement to address the demands of an expanding middle class and a society being rapidly urbanised and professionalised. This chapter established the breadth of influences likely to have had an impact on the decisions taken at St Paul's, contextualising, in particular, the perspective of the legislators responsible for the re-siting and redevelopment of the school.

The second data chapter then focussed on the development of the scheme under which St Paul's was rebuilt, looking firstly at the role played by legislators in the evolution of the scheme.

St Paul's was initially examined by the Clarendon Commission, whose report of 1864 was to form the basis of the Public Schools Act of 1868. Though the school was ultimately excluded from the Act (and later amending Acts), it continued to view itself (as did others) as a leading public school. Both as an institution and a building, however, it developed on very different lines from other examples of a genre extensively analysed in the existing literature.

Over the course of the 19th century, the seven boarding public schools encompassed within the scope of the Public Schools Act(s) developed common infrastructure characteristics, reflecting the emphasis they placed on developing character as much as intellect. As well as provision specific to boarding (sleeping quarters in individual 'houses', sanatoria, etc.), they were universally distinguished by: a school chapel (emblematic of their priority of instilling spiritual and moral values); extensive playing fields (reflecting the emphasis placed on 'esprit de corps' and muscular manliness); high-status space reserved exclusively for prefects (underlining the aspirational nature of leadership). In the wake of the Act, though all seven schools introduced some form of 'modern' education (i.e. instruction in science, drawing, modern languages and social science), they continued to stress the primacy of the classical curriculum, an imbalance reflected in their physical development, where accommodation for science generally remained vestigial.

St Paul's was ultimately rebuilt under the jurisdiction of the Endowed Schools Act, legislation which addressed the development of secondary schools not encompassed within the terms of the Public Schools Act. By investigating how the concerns of the commissioners who implemented this Act (the Charity Commissioners) varied from those of the Clarendon Commissioners it was possible to trace why a different order of priorities emerged in the brief for St Paul's, where, in marked contrast to the school's boarding-school counterparts, there was no requirement for a chapel, no dedicated room for prefects and only limited playing fields. Conversely, facilities for instruction in science were ample and up-to-date.

This chapter also examined the role played by the school governors in developing and implementing the scheme, exploring how their views were reflected in decisions taken about the site, curriculum, head and architect. It also looked at the way these views related to those of the Charity Commissioners.

The third data chapter investigated the intellectual, political and personal outlook of Frederick William Walker, the High Master appointed just prior to the rebuild. Walker was given responsibility for outlining the physical requirements for the new building, and his brief, with only minor amendments, was the one given to the architect at the outset of the design process.

The second and third data chapters evaluated the educational, social and political factors, which helped shape decisions about the form and function of the new school building, and established that the main decision makers at St Paul's were acting from a Liberal, progressive perspective within a broad reforming movement in middle-class education. I concluded that the critical decision to unite the 'Modern' and 'Classical' sides at St Paul's both administratively and physically reflected this perspective, emphasising the delivery of a sophisticated scientific and technical curriculum intended to put middle-class education on a par with that being delivered in France, Germany and the US. This imperative was deemed particularly pressing in the last quarter of the century at a time when these nations were increasingly viewed as commercial competitors.

The need for improved scientific education for the middle classes had been addressed by the Clarendon Commissioners in the 1860s, but the Commissioners

had ultimately emphasised that the schools it was investigating, while introducing some science instruction, should continue to give priority to a classical education. This course of action was the one adopted by the heads of the Clarendon Schools in the wake of the Public Schools Act. Though Frederick William Walker had been educated at a Clarendon School and was himself a distinguished classical scholar, his commercial middle-class, non-Conformist background and long experience as the head of an urban endowed grammar school in the industrial north of England meant he arrived at St Paul's with a radically different outlook on the requirements of a modern education. It was specifically this outlook that made him attractive to the school governors, particularly Lord Selborne, chair of governors at the time of his appointment, who was a leading figure in the Gladstone administration and a champion of sophisticated technical education at the City and Guilds Institute of Technology in London, the precursor of Imperial College.

The fourth data chapter analysed the work of Alfred Waterhouse, the architect of the new St Paul's school building, examining his background, connections, status, design strengths and work in educational buildings in order to establish the factors likely to have influenced the decision to employ him.

Though Alfred Waterhouse is today primarily remembered for his major public buildings, notably Manchester Town Hall and the Natural History Museum (both of which contributed to his reputation as the 'Richard Rogers' of his day), closer examination of his career revealed that other attributes were as likely to have led to his appointment at St Paul's as his undoubted renown. Foremost amongst these were: his widely acknowledged skill as a planner of complex educational institutions

for which there was no design precedent, something clearly demonstrated and overtly acknowledged in his work at Owens College in Manchester, England's first civic university college, and at Girton College, Cambridge, the country's first university college for women, both designed in the 1870s. This research also brought to light the fact that at the time of his appointment Waterhouse was the country's foremost designer of science laboratories, an aspect of his talents clearly well known to the governors of St Paul's, as Waterhouse was concurrently engaged in designing the extensive new science laboratories at the City and Guilds Technical Institute, a project with which the governors were closely involved.

This chapter also charted the evolution of Waterhouse's design for the new school building, chronicling how decisions were made about the style of the building, the budget and the plan. It clarified the decision-makers' priorities, foremost amongst which were to: create a building and grounds large enough to accommodate 1000 boys; build a school which synthesised the Modern and Classical sides of the curriculum and contained up-to-date facilities to deliver both to the same high standard; ensure that the cost of the building was sufficiently contained to allow funds from the Coletine endowment to be redistributed to supply additional educational provision elsewhere.

As noted in Chapter 3, the secondary literature pays only limited attention to the architecture of the wealthier, endowed urban day schools in London and other large cities (also classified by contemporaries as public schools), and, while there has been some analysis of the architecture of the new university colleges being established throughout England in the second half of the 19th century, this literature

makes no connection with the design of these colleges and the development of secondary-school architecture. In light of this, this chapter explored the architectural links between the design of St Paul's and that of some of the leading endowed day schools and civic university colleges, as well as with the City and Guilds Technical Institute, all of which were developing new intellectual and social opportunities for an increasingly professionalised middle class.

The final data chapter, relying on primary sources, examined the way the building was used on completion as well as how it was modified in light of changing academic requirements in the 20 years after its construction, a period during which St Paul's became the leading academic school in the country. This chapter also appraised the impact of the design in a broader context, addressing both its contemporary critical reception and its longer-term role in the evolution of secondary education and secondary-school architecture.

THE MICROHISTORICAL ANALYSIS

Chapter 2 suggested that employing a microhistorical framework and using the case study of St Paul's as an example of the 'exceptional normal' would allow the 'use empirical and archival evidence to test and refine standard generalisations and partially informed assumptions'. This approach would enable greater comprehension of a complex social phenomenon and help illuminate why decisions were taken, how they were implemented and with what result. This methodological framework has proven to be fruitful not only as a means of addressing the original research

questions, but also, more unexpectedly, in bringing to light significant anomalies in the broader literature.

The conclusions of my research have been:

The design of the new St Paul's building was distinctive in that it allowed the school to: synthesise a Modern and a Classical education for a large number of pupils under the direction of a single head in a single building; provide a challenging academic education which would prepare its pupils not only to win classical scholarships to Oxford and Cambridge, but also to compete successfully for training in medicine, engineering and science and for careers in the Civil Service and the army; provide an education in both the sciences and classics which, in the higher forms of the school, was of university quality taught in a university-like manner.

These objectives were evident throughout the design process and were manifested in the decisions to: relocate the school to a metropolitan suburb, served by the widest possible access by public transport, allowing it to select able pupils from all over the capital (an aim further underlined by the provision of expansive on-site dining facilities); provide among the most up-to-date and extensive science facilities then available at school level, as well as expansive facilities for the study of drawing, a critical adjunct to the study of the natural and physical sciences and of mathematics.

The detailed analysis of the building also provided telling evidence to construct a counter-narrative to that presented in written accounts of the school during the

period in question. These accounts, describing a time and environment where the classics held a higher status than science, often omit or deprecate the scientific instruction given at the school. The plans of the building, however, demonstrate that approximately a sixth of the internal space was allocated to accommodation for science and science-related subjects, while documentary research relating to the career destinations of pupils indicate that a high proportion of pupils (well over half) went on to careers where studying these subjects would have been a pre-requisite.

What also became clear from this study was that, while St Paul's always took its status as a public school seriously (indicated in the governor's response to the Charity Commissioners' intervention, written accounts of the period, and in the approach to its interior design), at no point did it seek to emulate the architectural approach taken by the public boarding schools, either in its choice of architect or in its building priorities.

St Paul's had been founded in the early 16th century by John Colet, Dean of St Paul's Cathedral, to provide a rigorous intellectual education to a cosmopolitan metropolitan elite. My research shows that, within the context of a very different age, the decisions taken about its architecture continued to emphasise these priorities. Not only do Waterhouse's plans and elevations suggest that the new St Paul's building was intended to provide a distinct departure from contemporary public schools, but their similarity to the university colleges he was designing at the time, as well as their cost (equal to, if not greater than, that of these colleges), would indicate that the new building was supposed to represent in physical form the characteristics

of intellectual industry necessary to succeed in the professional age rather than the virtues of character and leadership prioritised by the boarding public schools.

By analysing the attributes of the architect in greater detail, it was possible to identify the factors likely to have led to his appointment. These factors, far from being related to the extravagant cost of his services, included the fact that he was: particularly well known for designing university buildings, both at the older and newer universities; acknowledged to be exceptionally skilled in designing up-to-date science facilities; widely admired for his ability to provide innovative solutions to educational building types, which had not previously existed; and, finally, was sufficiently renowned nationally to draw attention and give authority to the school's radical venture, providing a reflection of its own perception of its national status.

Though St Paul's was a well-known school, it is possible to argue (with caution) that at the time of the move, it was a school in relative decline, and, as such, not as celebrated as Alfred Waterhouse. Through the school's choice of architect, the design for the new school received unusually extensive publicity in the national press, the architectural press and at the Royal Academy, enhancing the status of the school and the model of education it offered.

The celebrity of the architect had long-term repercussions unrelated to the original intent of the brief. In designing St Paul's, Alfred Waterhouse developed a model of a secondary-school building that was to be widely copied. Though, there were undoubtedly precedents for aspects of the design in schools abroad (particularly in Germany) and in other London day schools, such as Dulwich College, Waterhouse

was the first to provide a convincing synthesis of a variety of new functions, which were to become standard by the turn of the century. In creating a free-standing building on several floors with adjoining playing fields, which contained classrooms, an Assembly Hall, a school library, a headmaster's study, staff common rooms, science laboratories and a dining hall, the St Paul's School building of 1878-1884 was effectively the first modern English secondary school. It was also the embodiment of a building ideally adapted to producing a metropolitan elite, and became a model which endured into the 20th century and beyond.

AREAS OF FUTURE RESEARCH

To conclude, in light of the current debate about the value or otherwise of architects and architecture in secondary-school buildings, this study offers useful insight into the way design can facilitate a school's functions and express its values.

Undertaking recent field work at St Paul's School and touring its buildings in the company of the architects responsible for the current rebuild, I found that the approach to architecture here today remains as thoughtful as it was in the 19th century, intended both to further the school's ethos and underline its purpose.

At a time when there is concern about how public money should best be expended on school infrastructure, I would argue that similar analysis might usefully be brought to bear on secondary-school buildings erected in the wake of the Academies

programme and the Building Schools for the Future programme to illuminate the objectives and outcomes of decisions taken in the creation of these buildings.

TIMELINE FOR THE REBUILDING OF ST PAUL'S SCHOOLS 1878-1884

1508/9 St Paul's School founded by John Colet, Dean of St Paul's Cathedral, in a new school house abutting the Cathedral

1670-71 St Paul's rebuilt in the wake of its destruction in the Great Fire of London on its original site to a design by Edward Jerman, Surveyor to the Mercers

1824 St Paul's rebuilt for the third time as a single-room school house on its original site to a design of George Smith, Surveyor to the Mercers

1830 Birth of Frederick William Walker

1830 Birth of Alfred Waterhouse

1845 Frederick William Walker arrives at Rugby School as a day boy under the headship of Archibald Tait, successor to Thomas Arnold

1850 Walker goes to Corpus Christi College, Oxford

1859 Walker appointed head of Manchester Grammar School

1862 St Paul's School is inspected by the Clarendon Commission

1864 The Clarendon Commission report is published, including recommendations for the reform and relocation of St Paul's School

1868 Passing of the Public School's Act. St Paul's School omitted from the Act.

1868 Decision about the St Paul's School endowment taken in Chancery Court

1869 Passing of the Endowed Schools Act

1869 St Paul's School transferred to the remit of the Endowed Schools Act

1873 Start of negotiations about the scheme for St Paul's

1875-6 Appointment of Roundell Palmer, Lord Selborne, as Master of the Mercers (and so chair of governors of St Paul's)

1876 Finalisation of the first scheme for St Paul's, with the option to synthesise the Modern and Classical sides

1876 Frederick William Walker appointed High Master of St Paul's

1877 Frederick William Walker arrives as head

1877 School governors select site for the new school and win approval for the site from the Charity Commissioners

1878 Frederick William Walker invited by the school governors to draw up a brief for the new school building

1878 Appointment of Alfred Waterhouse as architect of the new building

1879 Decision to amalgamate the Modern and Classical sides in the new building taken by the school governors

1878-1880 Waterhouse's plans for the school submitted to the governors and the Charity Commissioners

1884 New St Paul's School building opens

BIBLIOGRAPHY

PRIMARY SOURCES

a. Archival Material

Balliol College Archive

Jowett, B., *Letters and Journals*

Bailey, C. (undated), unpublished memoir

Minutes of College Council (13th April, 1866)

Corpus Christi College archive

Entrance registers

Girton College archive

Manuscript Letter, 1886

Manchester Grammar School archive

The Minutes of the Governors, April 5th, 1871

Mercers' Company archive

The Minutes of the Governors of St Paul's School, 1876-1900

Merchant Taylors' School archive

MS 34310: '*Removal to Charterhouse Square*' - illustrations

RIBA Drawings Collection, Victoria and Albert Museum

Rugby School archive, online at <https://archive.org/details/rugbyschoolregis01rugbuoft>
(downloaded 21.8.2018)

Salters, www.salters-rugby.co.uk (downloaded 15th June, 2015)

b. Published Material – Reports and Office Publications

1851 Census, www.ancestry.com

Building Regulations for Secondary Schools and Pupil Teacher Centres: Being Principles to be Observed in Designing & Fitting Up New Buildings, etc. and Certain Requirements as to Plans, Specifications and Estimates, Board of Education (March 1906), Appendix B in Clay, F. (1902/1906), *Modern School Buildings, Elementary and Secondary*, London: B.T. Batsford

Colet, J. (1518), *Statutes of St Paul's School*, Appendix A in Lupton, J.H., *Life of Colet* (1887/1909), London: George Bell & Sons

Colet, J. (1534), *Articles of Admissions*, Appendix B in Lupton, J.H., *Life of Colet* (1887/1909), London: George Bell & Sons

Commission on Scientific Instruction and the Advancement of Science, Sixth Report, Parliamentary Papers, Vol 4., Session 1875, Irish University Press Reprints, Education Scientific and Technical: Vol. 4, Session 1875

Committee of Council on Education Report (1870-1)

Minutes of the Committee of Council on Education, 1857-8, Circular letter, 27th February, 1858.

DfES (2003), *Building Schools for the Future, Consultation on a New Approach to Capital Investment*, online at www.teacher.gov.uk/doc/3611/buildingschoolsforthefuture.pdf (downloaded 20.8.2018)

DfES (2004), *Schools for the Future, Exemplar Designs, concepts and ideas*, DfES

DfES (2004), *Building Schools for the Future, A New Approach to Capital Investment*, online at <http://webarchive.nationalarchives.gov.uk/20111122053934/https://www.education.gov.uk/publications/eOrderingDownload/DfES%200218%20200MIG467.pdf> (downloaded 23.6.2018)

Hansard, *Oxford University Bill*, 22nd June 1854, Vol.134

Independent Schools Inspectorate, *Educational Quality Report 2017, St. Paul's School*, online at <https://www.isi.net/school/st-paul-s-school-7036> (downloaded 17.2.18)

Report of Her Majesty's Commissioners appointed to inquire into the Revenues and Management of certain Colleges and Schools: and the studies pursued and instruction given therein, with an appendix and evidence (4 vols.) (1864), HMSO

Royal Commission on Scientific Instruction and the Advancement of Science, 1876, First, Supplementary, and Second Reports, with Minutes of Evidence and Appendices, Vol.1, 16th November, 1870, London: George Edward Eyre and William Spottiswood

Schools Inquiry Commission, Report of the Commissioners (to inquire into the education given in schools not comprised within Her Majesty's two former commissions...) (1868), HMSO

c. Published Material – Books and Pamphlets

Abbott, E. and Campbell, L. (1897), Vol. II. *The Life and Letters of Benjamin Jowett*, London: John Murray

Anon. (1911), *Frederick Walker at the New School*, in Gardiner, R.B., Lupton, J. (eds.) (1911), *Res Paulinae*, West Kensington: St Paul's School

Armitage, F.P. (1911), *Natural Science at St Paul's School* in Gardiner, R.B., Lupton, J. (eds.) (1911), *Res Paulinae*, West Kensington: St Paul's School

Arnold, M. (1864), *A French Eton, or Middle Class Education and the State*, London and Cambridge: Macmillan & Co

Arnold, M. (1874), *Schools and Universities in France*, London: Macmillan and Co

Arnold, T. (1845), *Miscellaneous Works*, London: B. Fellowes

Axon, W.E.A. (ed.) (1878/1977), *An Architectural and General Description of the Town Hall*, Manchester: Manchester Town Council

Bailey, E.S. (1911), *Athletics in St Paul's School* in Gardiner, R.B., Lupton, J. (eds.) (1911), *Res Paulinae*, West Kensington: St Paul's School

- Bailey, G. (1911), *The School Buildings* in Gardiner, R.B., Lupton, J. (eds.) (1911), *Res Paulinae*, West Kensington: St Paul's School
- Bentham, J. (1816/1983), *Chrestomathia*, (Smith, M.J., Burston, W.H., eds.), Oxford: Clarendon Press
- Bentley, E.C. (1940), *Those Days*, London: Constable & Co. Ltd
- Blanch, W.H. (1877), *Dulwich College and Edward Alleyn, A Short History of the Foundation of God's Gift College at Dulwich, together with a memoir of the Founder*, London: E.W. Allen
- Brothers, A. (1878), *Manchester as It Is: A Series of Views of Public Buildings in Manchester and Its Vicinity*, Manchester: J.E. Cornish
- Brown, R.P. (1911), *The Closing Years of Dr Kynaston*, in Gardiner, R.B., Lupton, J. (eds.) (1911), *Res Paulinae*, West Kensington: St Paul's School
- Butler, S. (1896), Vol. II, *Life and Letters of Samuel Butler*, London: John Murray
- Carlisle, N. (1818/1975), *A Concise Description of the Endowed Grammar Schools, Leicestershire, Northamptonshire, Rutland, Staffordshire, Warwickshire and Worcestershire (extracted from Vol.1)*, London: Richmond Publishing Co Ltd
- Chesterton, G.K. (1936/1959), *Autobiography*, London: Hutchinson & Co, reprinted, London: Grey Arrow
- Clay, F. (1902/1906), *Modern School Buildings, Elementary and Secondary*, London: B.T. Batsford
- Coleridge, J.T. (1860), *Public School Education, A Lecture Delivered at the Athenaeum, Tiverton*, London: John Murray
- Conan Doyle, A. (1892/1928), 'The Naval Treaty' in *Sherlock Holmes: The Complete Short Stories*, London: John Murray
- Coutts-Trotter, V.M. (1911), *Mr Walker, High Master: At the New School, 1884-1905*, in Gardiner, R.B., Lupton, J. (eds.) (1911), *Res Paulinae*, West Kensington: St Paul's School
- Dunstan, M.J.R. (1911), *Early Days of Natural Science*, in Gardiner, R.B., Lupton, J. (eds.) (1911), *Res Paulinae*, West Kensington: St Paul's School
- Eastlake, C.L. (1872/1975, with an Introduction by Gowans, A.), *A History of the Gothic Revival*, New York: American Life Foundation
- Engels, F. (1845/1976), *The Condition of the Working Class*, St Alban's: Panther Books
- Erasmus of Rotterdam (1519), *The Lives of Jehan Vitrier and John Colet*, Lupton, J.H. (tr.) (1883), London: George Bell and Son
- Farrar, F.W. (1868), *Essays on a Liberal Education*, London: Macmillan (facsimile reprint, University of Michigan Library)
- F.D.M. (February, 1846), in *The Rugby Miscellany*, London: Whittaker and Co

- Fowler, T. (1893), *The History of Corpus Christi College with Lists of Its Members*, Oxford: Printed for the Oxford Historical Society at the Clarendon Press
- Gardiner, R.B. (1906), *The Admissions Registers of St Paul's School from 1876 to 1905*, London: George Bell and Sons
- Gardiner, R.B., Lupton, J. (eds.) (1911), *Res Paulinae*, West Kensington: St Paul's School
- Gardiner, R.B. (1911), *The School Library* in Gardiner, R.B., Lupton, J. (eds.) (1911), *Res Paulinae*, West Kensington: St Paul's School
- Gilbert Scott, G. (1879), *Personal and Professional Recollections*, London: Sampson Low, Marston, Searle & Rivington
- Haig Brown, W. (1879), *Charterhouse Past and Present*, Godalming: H. Stedman
- Harris, R. (1911), *Art Teaching at St Paul's* in Gardiner, R.B., Lupton, J. (eds.) (1911), *Res Paulinae*, West Kensington: St Paul's School
- Hayavadano Rao, C. (1915), *The Indian Biographical Dictionary*, Madras: Pillar
- Hughes, T. (1857/1993), *Tom Brown's Schooldays*, Ware: Wordsworth Editions
- Leach, A.F. (1911), ECD, *Educational Charters and Documents, 598-1909*, Cambridge: Cambridge University Press
- Lionel Rogers, H. (1909), *The Reform of the Public School* in Norwood, C. and Hope, A.H. (1909), *The Higher Education of Boys in England*, London: John Murray
- Littlewood, E.N. (1986), *Littlewood's Miscellany*, ed. Bollobás, B. (first published 1953 as *A Mathematician's Miscellany*, Methuen and Co), Cambridge: Cambridge University Press
- Lupton, J. H. (1887/1909), *A Life of John Colet, DD, Dean of St Paul's and Founder of St Paul's School*, London: George Bell and Sons
- Mackenzie, C. (1913/1960), *Sinister Street*, London: Penguin Books
- Mackenzie, C. (1963), *My Life and Times, Octave Two, 1891-1900*, London: Chatto & Windus
- Marcy, W.N. (1932), *Reminiscences of a Public Schoolboy*, London: Elkin Mathews & Marrot
- Marguerin, E. (1864), *De L'enseignement des Classes Moyennes et des Classes Ouvrières en Angleterre: Rapport Présentée à M. Le Sénateur, Préfet de La Seine*, Paris: Charles de Mourgues Frères
- Mewburn, C. (1911), *The Third School* in Gardiner, R.B., Lupton, J. (eds.) (1911), *Res Paulinae*, West Kensington: St Paul's School
- Morris, W., Henderson, P. (ed.) (1950), *The Letters of William Morris to his Family and Friends*, London: Longmans Green & Co
- Nash, P. (1949/1988), *Outline*, London: Columbus Books

- Norwood, C. and Hope, A.H. (1909), *The Higher Education of Boys in England*, London: John Murray
- Palmer, R. (1896), *Memorials. Part 1, Family and personal, 1766–1865*, Vol. 1., London, New York: Macmillan
- Palmer, R. (1896), *Memorials. Part 1, Family and personal, 1766–1865*. Vol.2., London, New York: Macmillan
- Palmer, R. (1898), *Memorials, Part II, Personal and Political, 1865-1895*, Vol.1., London, New York: Macmillan
- Palmer, R. (1898), *Memorials, Part II, Personal and Political, 1865-1895*, Vol. 2., London, New York: Macmillan
- Pepys, S. (1669/1947), *The Diary of Samuel Pepys, 1660-1669*, London: G. Bell and Sons
- Raymond, E. (1961), *Mr. Olim*, London: Cassell
- Robson, E.R. (1874/1972), *School Architecture*, with an introduction by Seaborne, M., Leicester: Leicester University Press
- Roscoe, H.E. (1878), *Description of the Chemical Laboratories at the Owens College Manchester, from the Plans of Alfred Waterhouse, A.R.A.*, Manchester: J.E. Cornish
- Roscoe, H. (1906), *Life and Experiences of Sir Henry Enfield Roscoe, DCL., LL.D., FRS., written by himself*, London: Macmillan & Co
- The Rugby Miscellany* (1846), London: Whittaker and Co
- Rugby School Register* (1881), Vol.1, from 1675-1849 inclusive, Rugby: A.J. Lawrence
- Ruskin, J. (1903-1912), *The works of John Ruskin, Vols. 1-38* (Cook, E.T. and Wedderburn, A., eds.), London: George Allen
- Ruskin, J. (1904), Vol. II, *Letters of John Ruskin to Charles Eliot Norton* (ed. Norton, C.E.), Boston: Houghton Mifflin
- Sams, H.A. (1933), *Pauline and Old Pauline, 1884-1931*, Cambridge: University Press Cambridge
- Seaton, R.C. (1911), *St Paul's School and the Charity Commission*, in Gardiner, R.B., Lupton, J. (eds.) (1911), *Res Paulinae*, West Kensington: St Paul's School
- Serpell, H.W. (1909), *The School Magazine*, in Norwood, C. and Hope, A.H. (1909), *The Higher Education of Boys in England*, London: John Murray
- Shaw, R.N. and Jackson, T.G. (1892), *Architecture: A Profession or an Art?*, London: John Murray
- Shepard, E.H. (1961/2002), *Drawn from Life*, London: Methuen
- Snowden, H.G. (1911), *Mr Walker at the Old School*, in Gardiner, R.B., Lupton, J. (eds.) (1911), *Res Paulinae*, West Kensington: St Paul's School

Spencer, H. (1861), *Education, Intellectual, Moral and Physical*, London: Watts & Co

Stanley, A.P. (1844/1910), *The Life and Correspondence of Thomas Arnold, D.D., Late Headmaster of Rugby School, and Regius Professor of Modern History in the University of Oxford*, New York: Charles Scribner's Sons

Staunton, H. (1865/ 2002), '*The Great Schools of England*', Daldy, Isbister: reprinted Hardinge Simpole Publishing

Stow, D. (1836), *The Training System adopted in model schools of the Glasgow Educational Society*, Glasgow: McPhun

Strype, J. (1720), *A Survey of the Cities of London and Westminster*, online at <https://www.dhi.ac.uk/strype/>

Stuart, I.M.B. (1932), *Supplement to Reminiscences of a Public Schoolboy*, London: Elkin Mathews & Marrot

Thompson, J. (1886), *The Owens College, Its Foundation and Growth and its Connection with the Victoria University, Manchester*, Manchester: J.E. Cornish

Watkin, F.W.W. (1911), '*Natural Science*' in Gardiner, R.B., Lupton, J. (eds.) (1911), *Res Paulinae*, West Kensington: St Paul's School

Wetherfield, S. (1911), *The Beginning of Athletics at St Paul's School*, in Gardiner, R.B., Lupton, J. (eds.) (1911), *Res Paulinae*, West Kensington: St Paul's School

Whyley, F. (1911), *Reminiscences of St Paul's School Under Dr Kynaston's Rule* in Gardiner, R.B., Lupton, J. (eds.) (1911), *Res Paulinae*, West Kensington: St Paul's School

Wilson, J. M. (1868), *On Teaching Natural Science in Schools*, in *Essays on a Liberal Education*, London: Macmillan and Co (facsimile reprint University of Michigan Library)

Wilson, J.M. (1932), *James M. Wilson: An Autobiography 1836-1931*, London: Sidgwick & Jackson Ltd

Woolf, L. (1960), *Sowing, An Autobiography of the Years 1880-1904*, London: The Hogarth Press Ltd

d. Published Material – Journals, Magazines, Websites

The Architect, Jan 30th, 1869

The Athenaeum (1867), p.391

Arnold, T., *Educational Times*, May 1862

BBC News, online at <http://www.bbc.co.uk/news/10514113> (downloaded 18.8.2018)

British Architect, 30th October, 1896

British Architect and Northern Engineer, 2ND May, 1877

The Builder 1859-1889

Building Design, 3RD February, 2011, Will Hurst, online at bdonline.co.uk, (downloaded 18.3.2017)

Building News 1879-1905

Central Society of Education (1837)

Chetham's School of Music website, http://library.chethams.com/wp-content/uploads/sites/3/2016/09/Information_note_2_English_version_July_2015.pdf (downloaded 6.5.2018)

The Classical Review,
http://archive.org/stream/classicalreview05clasuoft/classicalreview05clasuoft_djvu.txt

Government People, <https://www.gov.uk/government/people/michael-gove>

The Edinburgh Review (Vol.XXX1, no.62, March 1819), p.502

Eton College website (2015),
<http://www.etoncollege.com/userfiles/files/A2%20copy%20of%20Final%20Summer%20Statistics%202015.pdf> (downloaded 6.5.2018)

Illustrated London News, 2nd March, 1844

Leicester Journal, 12 August, 1836

The Leicestershire Mercury, 5th August, 1837

Manchester Grammar School website online at <http://www.mgsglobal.org/frederick-walker>

Manchester Guardian 1859-1910

Manchester Times, 5th August, 1871

Manchester Times and Gazette, January 19th, 1833

Mercers' Company website, <https://www.mercers.co.uk/independent-schools>, (downloaded 25.5.2018.)

Monthly Notices of the Royal Astronomical Society (February, 1911), Vol.71

Nicholas Hare Associates website, <http://www.nicholashare.co.uk/projects/?t=g> (downloaded 20.1.18)

The Pauline, 1883-1900

Punch, 25th December, 1957

Quarterly Journal of Education, Vol.1, No. 2, April 1831

RIBAT, Clarke, T.C. (1877), pp.240-4, xxvii

St Paul's School website

<http://www.stpaulsschool.org.uk/st-pauls/academic/exam-results>
(downloaded 3.6.2017)

<http://www.stpaulsschool.org.uk/assets/img/banners/Copy-of-Annual-Prospectus-2016-Updated-for-website.pdf.>, (downloaded 3.6.2017)

<http://www.stpaulsschool.org.uk/about/renewal-campaign.> (downloaded 3.6.2017)

The Standard, October 26th, 1871

The Times, 1871-2004

Times Higher Educational Supplement, online at <https://www.tes.com/news/school-news/breaking-news/top-schools-and-colleges-tightening-grip-oxbridge-places> (downloaded 2.2.17)

Ulula, The Manchester Grammar School Magazine, 1873-6

Vanity Fair, 27th June, 1901

Walters & Cohen website at http://waltersandcohen.com/projects/by_sector/?p=st-paul\\s-school (downloaded 17.2.18)

Waterhouse, A. (1865), *Papers Read at the RIBA 1864/5*, pp.165-76

Wigan Grammar School website, online at <http://www.wigangrammarschool.co.uk/School3.htm> (downloaded 17.11.17)

SECONDARY SOURCES

Airs, M. (1975), *The Making of the English Country House, 1500-1640*, London: The Architectural Press

Airs, M., Whyte, W.(eds.) (2013), 'Architectural History After Colvin, *The Society of Architectural Historians of Great Britain Symposium 2011*', Donington: Shaun Tyas

Aldrich, R. (1982), *An Introduction to the History of Education*, London: Hodder & Stoughton

Allan, D.E. (2004), 'Ward, Francis Kingdon- (1885-1958)', *Oxford Dictionary of National Biography*, Oxford: Oxford University Press

Allsobrook, D.I. (1986), *Schools for the Shires, The Reform of Middle-Class Education in Mid-Victorian England*, Manchester: Manchester University Press

Allsopp, B. (1970), *The Study of Architectural History*, London: Studio Vista

Alter, P. (1987) (tr. Angela Davies), *The Reluctant Patron, Science and the State 1850-1920*, Oxford, Hamburg, New York: Berg

Anon. (1967), *King's College School, 1829-1967*, Truro: Netherton & Worth

Appleby, J., Hunt, L., and Jacob, M. (1994), *Telling the Truth about History*, New York: W.W. Norton & Company

- Archer, J.H.G. (ed.) (1985), *Art and Architecture in Victorian, Manchester*, Manchester: Manchester University Press
- Archer, J.H.G. (1985), 'A Classic of its Age' in *Art and Architecture in Victorian Manchester*, Manchester: Manchester University Press
- Archiseek, online at <http://archiseek.com/tag/davis-emanuel/> (downloaded 15.8.2018)
- Armytage, W.H.G. (1964/1970), *Four Hundred Years of English Education*, Cambridge: Cambridge University Press
- Arrowsmith, R.L. (1982), *Charterhouse Miscellany*, London: Gentry Books
- Atwood, S. (2011), *Ruskin's Educational Ideals*, London: Ashgate
- Ballantyne, A. (2006), 'Architecture as Evidence' in *Rethinking Architectural Historiography*, eds. Arnold, D., Altan Egut, E., and Turan Ozkaya, B., London and New York: Routledge
- Bamford, T.W. (1960), *Thomas Arnold*, London: The Cresset Press
- Bamford, T.W. (1967), *The Rise of the Public Schools, A Study of Boys' Public Schools in England and Wales from 1837 to the Present Day*, London and Edinburgh: Thomas Nelson
- Bamford, T.W. (1975), *Thomas Arnold and the Victorian Idea of a Public School in The Victorian Public School* (eds. Simon, B. and Bradley, I.), Dublin: Gill and Macmillan
- Barrett, C.R.B. (1895), *Charterhouse 1611-1895, in Pen and Ink*, London: Bliss, Sands and Foster
- Becher, T., Maclure, S. (1978), *The Politics of Curriculum Change*, London: Hutchinson
- Bell, Q., rev. Spalding, F. (2004), 'Grant, Duncan James Corrowr (1885-1978)', *Oxford Dictionary of National Biography*, Oxford: Oxford University Press
- Benjamin, W. *The Work of Art in the Age of Reproducibility in Walter Benjamin: Selected Writings*, tr. Jephcotts, E., Eiland, H. and others, eds. Eiland, H. and Jennings, M., Vol.4 (1935-8) 103, Cambridge, MA and London: Belknap Press of Harvard University Press (2002)
- Bentley, J. (1990), *Dare to be Wise: A History of the Manchester Grammar School*, London: Third Millennium Publishing
- Birley, G.I. (2004), 'Adams, William Grylls (1836-1915)', *Oxford Dictionary of National Biography*, Oxford: Oxford University Press
- Bollobás, B. (2004), 'Littlewood, John Edensor (1885-1977)', *Oxford Dictionary of National Biography*, Oxford: Oxford University Press
- Bonython, E. and Burton, A. (2003), *The Great Exhibitor, The Life and Work of Henry Cole*, London: V & A Publications
- Boyd, A.K. (1948), *The History of Radley College, 1847-1947*, Oxford: Basil Blackwell
- Brereton, J.L. (1944), *The Case for Examinations*, Cambridge: Cambridge University Press

Briggs, A. (1963/1990), *Victorian Cities*, London: Penguin Books

Britannica, online www.britannica.com/technology/piano-nobile (downloaded 17th October, 2018)

Brock, M.G. and Curthoys, M.C. eds. (2000), *The History of Oxford Vol. VII, Nineteenth-Century Oxford, Part 11*, Oxford: Clarendon Press

Brownlee, D.B. (2004), 'Street, George Edmund (1824–1881)', *Oxford Dictionary of National Biography*, Oxford: Oxford University Press

Burke, C. (2005), *Light: metaphor and materiality in the history of schooling* in Lawn, M. and Grosvenor I. (eds.), *Materialities of Schooling, Design, Technology, Objects, Routines*, Oxford: Symposium Books

Burke, C. and Grosvenor, I. (2008), *School*, London: Reaktion Books

Burke, C. and Grosvenor, I. (2013), *An Exploration of the Writing and Reading of a Life: The 'Body Parts' of the Victorian School Architect E.R. Robson* in *Rethinking the History of Education, Transnational Perspectives on its Questions, Methods and Knowledge*, eds. Popekiwitz, T.S., New York: Palgrave Macmillan

Burke, P. (1991/1992), *Overture: The New History, its Past and its Future* in *New Perspectives on Historical Writing*, Cambridge: Polity Press

Burke, P. (2001), *New Perspectives on Historical Writing*, Cambridge: Polity Press

Burke, P. (2004/2017), *What is Cultural History?*, Cambridge: Polity

Burke, P. (2005/2009), *History and Social Theory, 2nd Edition*, Cambridge: Polity Press

Burn, W.L. (1961), *The Age of Equipoise*, London: Unwin University Books

Burnett, J. (1969), *A History of the Cost of Living*, Harmondsworth: Penguin Books

Bussey, D. (2009), *John Colet's Children, The Boys of St Paul's School in Later Life (1509-2009)*, Oxford: Gresham Books Ltd

Carleton, J. (1938/1965), *Westminster School*, London: Rupert Hart-Davis

Carrington, R.C. (1971), *Two Schools*, London: The St Olave's and St Saviour's Grammar School Foundation

Chandos, J. (1984), *Boys Together, English Public Schools 1800-1864*, New Haven and London: Yale University Press

Charlton, H.B. (1951), *Portrait of A University, 1851-1951*, Manchester: Manchester University Press

Chichester, H.M, rev. Matthew, H.C.G. (2004), 'Fitzgerald, Sir William Robert Seymour Vesey (1816/18-1885)', *Oxford Dictionary of National Biography*, Oxford: Oxford University Press

- Chisholm, Hugh, ed. (1911), *Encyclopaedia Britannica* 4 (11TH edition), Cambridge: Cambridge University Press
- Cholmeley, R.F. (1912), 'Walker, Frederick William', *Dictionary of National Biography*, 1912 Supplement, Oxford: Oxford University Press
- Clark, K. (1928/1964), *The Gothic Revival*, Harmondsworth: Penguin Books
- Cohen, L., Manion, L., Morrison, K. (2000/2007), *Research Methods in Education*, London: Routledge Falmer
- Collingwood, S.D. (1898), *Life & Letters of Lewis Carroll*, London: T. Fisher Unwin
- Collins, H. (2004), *Edward Jerman 1605-1668, The Metamorphosis of a Master Craftsman*, Cambridge: Lutterworth Press
- Cooper, T., rev. Curthoys, M.C. (2004), 'Hessey, James Augustus (1814-1892)', *Oxford Dictionary of National Biography*, Oxford: Oxford University Press
- Copley, T. (2002), *Black Tom, Arnold of Rugby: The Myth and the Man*, London and New York: Continuum
- Crook, J.M. (1987/1989), *The Dilemma of Style, Architectural Ideas from the Picturesque to the Post-Modern*, London: John Murray
- Crook, J.M. (1990), *The Architectural Image* in Thompson, F.M.L., ed. *The University of London and the World of Learning, 1836-1986*, London: The Hambledon Press
- Crook, J.M. (1999), *The Rise of the Nouveaux Riches: Style and Status in Victorian Architecture*, London: John Murray
- Crook, J.M. (2013), *Brook's 1764-2014: The Story of a Whig Club*, London: Paul Hoberton
- Cruikshank, D. (ed.) (1985), *Masters of Building, Timeless Architecture:1*, London: The Architectural Press
- Cunningham C. and Waterhouse, P. (1992), *Alfred Waterhouse 1830-1905, Biography of a Practice*, Oxford: Clarendon Press
- Cunningham, C. (2004, online 2010) 'Alfred Waterhouse (1830-1905)', *Oxford Dictionary of National Biography*, Oxford: Oxford University Press
- Cust, L.H., rev. Pimlott Baker, A. (2004), 'Hakewill, Henry (1771-1830)', *Oxford Dictionary of National Biography*, Oxford: Oxford University Press
- D'Ancona, M. (2017), *Post Truth, The New War on Truth and How to Fight Back*, London: Ebury Press
- Dandelion, P. (2008), *The Quakers*, Oxford: Oxford University Press
- Davidson, T.R. and Benham, W. (1891), *Life of Archibald Tait, Archbishop of Canterbury*, Vol.1., London: Macmillan
- Dellheim, C. (1982), *The Changing Face of the Past*, Cambridge: Cambridge University Press

- Dickens, C. (1854), *Hard Times*, London: Bradbury and Evans
- Dilke, C. (1965), *Dr. Moberly's Mint Mark: A Study of Winchester College*, London: William Heinemann
- Disraeli, B. (1844/1982), *Coningsby, or a New Generation*, Oxford: Oxford University Press
- Dixon, R., Muthesius, S. (1978), *Victorian Architecture*, London: Thames & Hudson
- Doolittle, I.G. (1982), *The City of London and Its Livery Companies*, Dorchester, Dorset: The Gavin Press
- Doolittle, I. (1994), *The Mercers' Company 1579-1959*, London: The Mercers' Company
- Douglas-Smith, A.E. (1937/1965), *City of London School*, Oxford: Basil Blackwell
- Draper, F.W.M. (1962), *Four Centuries of Merchant Taylors' School 1561-1961*, London: Oxford University Press
- Draper, W.H. (1913), *Hammersmith, A Study in Town History*, Hammersmith: James Chamberlen
- Dunbabin, J.P.D. (2000), in Brock, M.G. and Curthoys, M.C. eds. *The History of Oxford Vol.VII, Nineteenth Century Oxford*, Part 11, Oxford: Clarendon Press
- Dyos, H. and Wolff, M. (1973), *The Victorian City, Vol.1, Images and Realities*, London and Boston: Routledge and Kegan Paul
- Dyos, H. and Wolff, M. (1978), *The Victorian City, Vol.2, Shapes on the Ground and A Change of Accent*, London and Boston: Routledge and Kegan Paul
- Efland, A.D. (1990), *A History of Art Education, Intellectual and Social Currents in Teaching the Visual Arts*, New York and London: Teachers College, Columbia University
- Elliot, A.D. (1911), *The Life of George Joachim Goschen, First Viscount Goschen, 1831-1907, Vol.1*, London: Longmans, Green and Co
- Evans, R.J. (1997/2000), *In Defence of History*, London: Granta Books
- Faber, G. (1957), *Jowett, A Portrait with Background*, London: Faber & Faber
- Field, J. (1987), *The King's Nurseries: Story of Westminster School*, James & James
- Fletcher, F. (1937), *After Many Days*, London: Robert Hale
- Fletcher, L. (1978), *The Teachers' Press in Britain*, Leeds: Leeds University Press
- Floud, R. and Glynn, S. (1998), *London Higher: The Establishment of Higher Education in London*, London: The Athlone Press
- Foden, F. (1989), *The Examiner: James Booth and the Origin of Common Examinations*, Leeds: University of Leeds

- Foucault, M. (1975/1991), tr. Sheridan, A., *Discipline and Punish: The Birth of the Prison*, Harmondsworth: Penguin Books
- Furneaux Jordan, R. (1966), *Victorian Architecture*, Harmondsworth: Pelican Books
- Gaskell, E. (1848), *Mary Barton, A Tale of Manchester Life*, London: Chapman and Hall
- Gaskell, E. (1855), *North and South*, London: Chapman and Hall
- Gathorne-Hardy, J. (1977), *The Public School Phenomenon*, London: Hodder and Stoughton
- Geertz, C. (1973), *Thick Description: Toward an Interpretive Theory of Culture* in *The Interpretation of Culture*, New York: Basic Books
- Geertz, C. (1973), *Deep Play: Notes on the Balinese Cock Fight* in *The Interpretation of Cultures*, New York: Basic Books
- George, A.L. and Bennett, A. (2005), *Case Studies and Theory Development in the Social Sciences*, Cambridge Massachusetts, London: MIT Press
- Ginzburg, C. (1976/1980), *The Cheese and the Worms: the Cosmos of a 16th Century Miller* (*Il formaggio e i vermi*, 1976, Giulio Einaudi Editore, tr. Tedeschi, A. and Tedeschi, J. first published in English in 1980 by Baltimore: John Hopkins Press)
- Ginzburg, C. and Poni, C. (1991), 'The Name and the Game: Unequal Exchange and the Historiographic Marketplace', in *Microhistory and the Lost Peoples of Europe*, (1991), eds. Muir, E. and Ruggiero, G., tr. Branch, E., Baltimore: John Hopkins University Press
- Girouard, M. (1971), *The Victorian Country House*, London: Oxford University Press
- Girouard, M. (1977), *Sweetness and Light, the 'Queen Anne' Movement, 1860-1900*, Oxford: Clarendon Press
- Girouard, M. (1978), *Life in The English Country House, A Social and Architectural History*, New Haven: Yale University Press
- Girouard, M. (1981), *Alfred Waterhouse and the Natural History Museum*, London: Natural History Museum Publications
- Girouard, M. (1985), *Foreward*, in Cruickshank, D.(ed.) *Masters of Building, Timeless Architecture*, London: The Architectural Press
- Goodhart-Rendel, H.S. (1953/1989), *English Architecture Since the Regency, an Interpretation*, London: Century
- Goodson, I.F. (1983), *School Subjects and Curriculum Change*, London and Canberra: Croom Helm
- Goodson, I.F. and Ball, S. (1984), *The Curriculum: Histories and Ethnographies of School Subjects*, London: Falmer Press
- Graces Guide to British Industrial History*, online
[https://www.gracesguide.co.uk/Richard_Johnson_\(1809-1881\)](https://www.gracesguide.co.uk/Richard_Johnson_(1809-1881)) (downloaded 25.4.2018)

- Graham, A. and Phythian, B.A. (1965), *The Manchester Grammar School*, Manchester: Manchester University Press
- Green, A. (1990/1992), *Education and State Formation, The Rise of Education Systems in England, France and the USA*, London and Basingstoke: The Macmillan Press Ltd
- Green, V.H.H. (1974), *A History of Oxford University*, London: B.T. Batsford
- Griffin, C. (2004), 'Bailey, Cyril (1871-1957)', *Oxford Dictionary of National Biography*, Oxford: Oxford University Press.
- Grosvenor, I. (1999), *On Visualising Past Classrooms in Silences and Images: The Social History of the Classroom*, ed. Grosvenor, I., Lawn, M., Rousmaniere, K., New York: Peter Lang
- Grosvenor, I. (2005), 'Pleasing to the Eye and at the Same Time Useful in Purpose': a historical exploration of education exhibitions, in Lawn, M. and Grosvenor I. (eds.), *Materialities of Schooling*, Oxford: Symposium Books
- Haley, B. (1978), *The Healthy Body in Victorian Culture*, Cambridge, Massachusetts: Harvard University Press
- Halliday, S. (2003), *Making the Metropolis, Creators of Victoria's London*, Butler & Tanner
- Hamilton, N. (2004/2011), 'Montgomery, Bernard Law (known as Monty), 1ST Viscount Montgomery of Alamein, 1887-1976,' *Oxford Dictionary of National Biography*, Oxford: Oxford University Press.
- Hammond, P.C. (2004/2007), 'Stanley, Arthur Penrhyn (1815–1881)', *Oxford Dictionary of National Biography*, Oxford: Oxford University Press, downloaded 17.9.2018
- Handford, B. (1986), *Lancing College, History and Memoirs*, Chichester: Phillimore & Co
- Harrison, B. (2004), 'Pevsner, Sir Nikolaus Bernhard Leon (1902-1983)', *Oxford Dictionary of National Biography*, Oxford: Oxford University Press
- Harper, R.H. (1983), *Victorian Architectural Competitions, An Index to British and Irish Architectural Competitions in The Builder, 1843-1900*, London: Mansell Publishing Ltd
- Harte, N. (1986), *The University of London 1836-1986*, London: Athlone Press
- Hartwell, C. (2001), *Manchester*, London: Penguin Books
- Heward, E. (1998), *A Victorian Law Reformer, A Life of Lord Selborne*, Chichester: Barry Rose
- Hinchcliff, P. and Prest, J. (2004/2006), 'Benjamin Jowett (1817-1893)', *Oxford Dictionary of National Biography*, Oxford: Oxford University Press
- Hinde, T. (1995a), *A Great Day School in London, A History of King's College School*, London: James & James
- Hinde, T. (1995b), *Carpenter's Children, The Story of the City of London School*, London: James & James

- Hitchcock, H-R. (1958/1969), *Pelican History of Art, Architecture: Nineteenth and Twentieth Centuries*, London: Penguin
- Hobsbawm, E.J. (1968/1983), *Industry and Empire*, London: Penguin
- Hodges, S. (1981), *God's Gift, A Living History of Dulwich College*, London: Heinemann
- Hoggart, R. (1957), *The Uses of Literacy*, London: Chatto & Windus
- Hope Simpson, J.B. (1967), *Rugby Since Arnold: A History of Rugby School from 1842*, London: Macmillan St Martin's Press
- Honey, J.R.de S. (1977), *Tom Brown's Universe, The Development of the English Public School in the Nineteenth Century*, New York: Quadrangle/The New York Times Book Company
- Howarth, J. (2000), *The Self-Governing University, 1882-1914, The History of Oxford Vol. VII, Nineteenth Century Oxford, Part 11*, Brock, M.G. and Curthoys, M.C. eds. (2000) Oxford: Clarendon Press
- Hughes, M.V. (1934/1977), *A London Childhood of the 1870s*, Oxford: Oxford University Press
- Hutton, T.W. (1952), *King Edward's School Birmingham*, Oxford: Basil Blackwell
- Iggers, G.G. (1997), *Historiography in the Twentieth Century, From Scientific Objectivity to the Postmodern Challenge*, Hanover: Wesleyan University Press
- Jenkins, F. (1961), *Architect and Patron, a Survey of Professional Relations and Practice in England from the Sixteenth Century to the Present Day*, London: Oxford University Press
- Jones, D.K. (1977), *The Making of the Education System, 1851-81*, London, Henley and Boston: Routledge and Kegan Paul
- Jones, D.R. (1988), *The Origins of the Civic Universities, Manchester, Leeds and Liverpool*, London: Routledge
- Jones, G.H. (2004), 'Sir George Jessel (1824-1883)', *Oxford Dictionary of National Biography*, Oxford: Oxford University Press
- Jones, M.D.W. (1995), *Brighton College 1845-1995*, Chichester: Phillimore
- Jordanova, L. (2000), *History in Practice*, London: Arnold
- Jordanova, L. (2012/2016), *The Look of the Past, Visual and Material Evidence in Historical Practice*, Cambridge: Cambridge University Press
- Kargon, R.H. (1977), *Science in Victorian Manchester, Enterprise and Expertise*, Baltimore and London: John Hopkins University
- Kirk, K.E. (1952), *The Story of the Woodard Schools*, Abingdon: Abbey Press
- Krumpe, E.C. (1987), *The Educational Ideas of the Clarendon Headmasters from 1860-1914*, New York and London: Garland Publishing

- Kynaston, D. (1994), *The City of London, Vol. 1., A World of its Own, 1815-1890*, London: Chatto & Windus
- Lamb, G.F. (1959), *The Happiest Days*, London: Michael Joseph
- Lang, J. (1975), *Pride Without Prejudice, The Story of London's Guilds & Livery Companies*, London: Perpetua Press
- Lang, J. (1978), *City and Guilds of London Institute, Centenary 1878-1978*, London: City and Guilds of London Institute
- Lawn, M. and Grosvenor, I. ed. (2005), *Materialities of Schooling: Design, Technologies, Objects, Routine*, Oxford: Symposium Books
- Lawn, M. (2005), *A Pedagogy for the Public; the place of objects, observation, mechanical production and cupboards*, in Lawn, M. and Grosvenor I. (eds.), *Materialities of Schooling*, (2005), Oxford: Symposium Books
- Lawson, F.H. (1968), *The Oxford Law School, 1850-1965*, Oxford: The Clarendon Press
- Leach, A.F. (1899), *A History of Winchester College*, London: Duckworth & Co
- Leighton, D. (2004), *The Greenian Moment: T.H. Green, Religion and Political Argument in Victorian Britain*. British Idealist Studies 3: Green, Imprint Academic
- Leinster-Mackay, D. (1987), *The Educational World of Edward Thring, A Centenary Study*, East Sussex: The Falmer Press
- Levi, G. (1991/1992), *On Microhistory*, in Burke, P. ed. (2001), *New Perspectives on Historical Writing*, Cambridge: Polity Press
- Lock, S. (2004), 'Dawson, Bertrand Edward, Viscount Dawson of Penn 1964-1945', *Oxford Dictionary of National Biography*, Oxford: Oxford University Press
- Love, C. (2008), *A Social History of Swimming in England, 1800-1918*, London and New York: Routledge Taylor and Francis Group
- McCrum, M. (1989), *Thomas Arnold, Headmaster*, Oxford: Oxford University Press
- McCulloch, G. and Richardson, W. (2000), *Historical Research in Educational Settings*, Buckingham: Open University Press
- McCulloch, G. (2004), *Documentary Research in Education, History and the Social Sciences*, London and New York: RoutledgeFalmer
- McCulloch, G. (2008), *Historical Insider Research in Education*, in P. Sikes, A. Potts (eds.), *Researching Education from the Inside: Investigations from Within*, Abingdon: Routledge
- McCulloch, G. (2011), *The Struggle for the History of Education*, London and New York: Routledge Taylor & Francis Group
- MacDonald, S. (1970), *The History and Philosophy of Art Education*, London: London University Press
- McDonnell, M.F.J. (1909), *A History of St Paul's School*, London: Chapman and Hall

- McDonnell, M.F.J. (1959), *The Annals of St Paul's School*, printed privately for the Governors
- Mack, E.C. (1938), *Public Schools and British Opinion, 1780-1860*, London: Methuen & Co
- Mack, E.C. (1941), *Public Schools and British Opinion Since 1860*, New York: Columbia University Press
- Mack, E.C. and Armytage, W.H.G. (1952), *Thomas Hughes: The Life of the Author of Tom Brown's Schooldays*, London: Ernest Benn
- Macleod, R. (ed.) (1982), *Days of Judgement*, Driffield: Nafferton Books
- Maclure, J.S. (1965/1986), *Educational Documents, England and Wales 1816 to The Present Day*, London and New York: Methuen
- Maclure, S. (1970/1990), *A History of Education in London, 1870- 1990*, London: Allen Lane
- Maclure, S. (1984), *Educational Development and School Building: Aspects of Public Policy 1945-73*, Harlow: Longman
- Magrath, J.R., rev. Baigent, E. (2004), 'Capes, William Wolfe (1834-1914)', *Oxford Dictionary of National Biography*, Oxford: Oxford University Press.
- Maltby, S., Macdonald, S., and Cunningham, C. (1983), *Alfred Waterhouse 1830-1905*, London: RIBA Heinz Gallery
- Mangan, J. A. (1975), *Athleticism: A Case Study of the Evolution of an Educational Ideology*, in Simon, B. and Bradley, I. (eds.) (1975), *The Victorian Public School*, Dublin: Gill and Macmillan
- Mangan, J. A. (1981/ 2000), *Athleticism in the Victorian and Edwardian Public School: The Emergence and Consolidation of an Educational Ideology*, Cambridge: Cambridge University Press
- Mangan, J.A. (1986), *The Games Ethic and Imperialism*, London: Frank Cass
- Marwick, A. (1970), *The Nature of History*, London: Macmillan
- Marwick, A. (1981), *The Nature of History*, 2nd Edition, London: Macmillan
- Marwick, A. (2001), *The New Nature of History: Knowledge, Evidence, Language*, Palgrave: London
- Mason, J. (2002), *Qualitative Research*, London: Sage
- Maxwell, H. (1913), *The Life and Letters of George William Frederick, Fourth Earl of Clarendon, Vol. 11*, London: Edward Arnold
- Mayor, H.B., rev. Curthoys, M. (2004), 'Wilson, James Maurice (1836-1931)', *Oxford Dictionary of National Biography*, Oxford: Oxford University Press
- Mead, A.H. (2004), 'Walker, Frederick William (1830–1910)', *Oxford Dictionary of National Biography*, Oxford: Oxford University Press

- Mead, A.H. (1990), *A Miraculous Draught of Fishes, A History of St Paul's School, 1509-1990*, James & James
- Meadows, A.J. and Brock, W. H. (1975), *Topics Fit for Gentlemen: The Problem of Science in the Public School Curriculum*, in Simon, B. and Bradley, I. (eds.) (1975), *The Victorian Public School*, Dublin: Gill and Macmillan
- Merriam, S.B. (1988), *Qualitative Research and Case Study Application in Education*, California: Jossey Bass
- Miller Lane, B. (1986/8), *Architects in Power: Politics and Ideology in the Work of Ernst May and Albert Speer*, in ed. Rotberg, R.I. and Rabb, T.K. (1986/8), *Art and History, Images and their Meaning*, Cambridge: Cambridge University Press
- Mitchell, C. (2004/2012), 'Hughes, Thomas (1822–1896)', *Oxford Dictionary of National Biography*, Oxford: Oxford University Press
- Montgomery, R.J. (1965/1978), *A New Examination of Exams*, Routledge & Kegan Paul
- Morgan, M.C. (1968), *Cheltenham College, The First Hundred Years*, Chalfont St Giles: Richard Sadler
- Mumford, A.A. (1919), *The Manchester Grammar School 1515-1915*, London: Longmans, Green and Co
- Muthesius, S. (1972), *The High Victorian Movement in Architecture 1850-1870*, London: Routledge and Kegan Paul
- Nailor, P. in Doolittle, I. (1994), *The Mercers' Company 1579-1959*, London: The Mercers' Company
- Newsome, D. (1959), *A History of Wellington College, 1859-1959*, London: John Murray
- Newsome, D. (1961), *Godliness and Good Learning*, London: Cassell Publishers Ltd
- O'Connor, J.J. and Robertson, E.F. (2003), 'Francis Sowerby Macaulay', *MacTutor*, History of Mathematics Archive, University of St Andrews, <http://www-history.mcs.st-andrews.ac.uk/Biographies/Macaulay.html> (downloaded 29.5.2018)
- Olley, J. and Wilson, C. (1985), *The Natural History Museum in Cruickshank*, D.(ed.) *Masters of Building, Timeless Architecture*, London: The Architectural Press
- Olsen, D.J. (1976), *The Growth of Victorian London*, London: B.T. Batsford Ltd
- Orchard, B. (1991), *A Look at the Head and the Fifty*, London: James & James
- Orme, N. (2006), *Mediaeval Schools*, New Haven and London: Yale University Press
- Otter, S.M. den (2004), 'Wilson, John Matthias', *Oxford Dictionary of National Biography*, Oxford: Oxford University Press
- Parkin, G.R. (2nd edition, abridged, 1900), *Edward Thring, Headmaster of Uppingham, Life, Diary and Letters*, London: Macmillan & Co Ltd

- Parkinson-Bailey, John J. (2000), *Manchester, An Architectural History*, Manchester and New York: Manchester University Press
- Peach, A. (2004), 'Shaw, John (1776–1832)', *Oxford Dictionary of National Biography*, Oxford: Oxford University Press
- Percival, A. (1969), *The Origins of the Headmasters' Conference*, London: John Murray
- Percy, F.H.G. (1976), *History of Whitgift School*, London: B.T. Batsford Ltd
- Perkin, H. (1960/1985), *The Origins of Modern English Society 1780-1880*, London and New York: Routledge and Kegan Paul
- Perkin, H. (1989/1990), *The Rise of Professional Society, England Since 1880*, London: Routledge
- Pevsner, N. (1940), *Academies of Art, Past and Present*, Cambridge: Cambridge University Press
- Pevsner, N. (1952/1974), *London, Except the Cities of London and Westminster*, Harmondsworth: Penguin
- Pevsner, N. and Nairn, I., rev. Cherry, B. (1957/1973), *The Buildings of England, The Cities of London and Westminster*, Harmondsworth: Penguin Books
- Pevsner, N. (1969), *The Buildings of England, South Lancashire*, Harmondsworth: Penguin Books
- Pevsner, N. (1972), *Some Architectural Writers of the 19th Century*, Oxford: Oxford University Press
- Pevsner, N. and Sherwood, J. (1974), *Oxfordshire, The Buildings of England*, Harmondsworth: Penguin Books
- Picciotto, C.M. (1939), *St Paul's School*, London and Glasgow: Blackie & Son Ltd
- Polden, P. (2004/2013), 'Hannen, James, Barron Hannen, 1821-1894', *Oxford Dictionary of National Biography*, Oxford: Oxford University Press
- Port, M.H. (2004), 'Barry, Sir Charles (1795–1860)', *Oxford Dictionary of National Biography*, Oxford: Oxford University Press
- Port, M.H. (2004), 'Hardwick, Philip (1792-1870)', *Oxford Dictionary of National Biography*, Oxford: Oxford University Press
- Priestley, R., rev. Baignet, E. (2004), 'Levick, (George) Murray (1876-1956)', *Oxford Dictionary of National Biography*, Oxford: Oxford University Press
- Pritchard, J.L., rev. Adams, S. (2004), 'Roe, Sir (Edwin) Alliot Verdon (1877-1958)', *Oxford Dictionary of National Biography*, Oxford: Oxford University Press
- Quick, A. (1990), *Charterhouse, A History of the School*, London: James & James
- Rabb, T.K. (1986/8), in ed. Rotberg, R.I. and Rabb, T.K., *Art and History, Images and their Meaning*, Cambridge: Cambridge University Press

- Randall T.D. and Benham, W. (1891), *Life of Archibald Campbell Tait, Archbishop of Canterbury*, London: Macmillan & Co
- Reeder, D. (1987), *The reconstruction of secondary education in England, 1869-1920 in The Rise of the Modern Educational System, Structural Change and Social Reproduction, 1870-1920*, Muller, D.K., Ringer, F., Simon, B. (eds.), Cambridge: Cambridge University Press.
- Reynolds, D.M. (1992), *Nineteenth-Century Architecture*, Cambridge: Cambridge University Press
- Richards, A.N.G. (1968), *St Paul's School in West Kensington, 1884-1968, A Brief Account of the Buildings and Site*, Privately Printed
- Rigg, J.M. (1885-1900) 'Palmer, Roundell, 1st Earl of Selborne', *Dictionary of National Biography*, Vol.43, Oxford: Oxford University Press
- Roach, J. (1971), *Public Examinations in England, 1850-1900*, Cambridge: University Press
- Robson, E. and Stedall, S. eds. (2009), *The Oxford Handbook of the History of Mathematics*, Oxford: Oxford University Press
- Rodd, E.H., rev. Brock, W.H. (2004), 'Armstrong, Henry Edward (1848-1937)', *Oxford Dictionary of National Biography*, Oxford: Oxford University Press
- Rothblatt, S. (1968), *The Revolution of the Dons, Cambridge and Society in Victorian England*, London: Faber and Faber Ltd
- Rothblatt, S. (1988), 'London A Metropolitan University?' in *The University and The City, from Medieval Origins to the Present*, ed. Bender, T., Oxford: Oxford University Press
- Rouse, W.H.D. (1898), *A History of Rugby School*, London: Duckworth & Co
- Rowbotham, J.F. (1901), *The History of Rossall School*, Manchester: John Heywood
- Sadler, M.E., rev. Curthoys, M.C., (2004), 'Blake, Thomas William Jex- (1832–1915)', *Oxford Dictionary of National Biography*, Oxford: Oxford University Press
- Saint, A. (1983/1985), *The Image of the Architect*, New Haven and London: Yale University Press
- Saint, A. (1987), *Towards a Social Architecture: The Role of School Building in Post-War England*, New Haven: Yale University Press
- Sanderson, M. (ed.) (1975), *The Universities in the 19th Century*, London: Routledge & Kegan Paul
- Sandford, E.G. (1907), *Frederick Temple, An Appreciation*, London: Macmillan & Co
- Scott, P. (1975), *The School and the Novel: Tom Brown's Schooldays*, in Simon, B. and Bradley, I. (eds.) (1975), *The Victorian Public School*, Dublin: Gill and Macmillan
- Seaborne, M. (1971), *The English School, Its Architecture and Organization, 1370-1870*, London: Routledge & Kegan Paul

- Seaborne, M. (1975), *The Architecture of the Victorian Public School*, in Simon, B. and Bradley, I. (eds.) (1975), *The Victorian Public School*, Dublin: Gill and Macmillan
- Seaborne, M. and Lowe, R. (1977) *The English School, Its Architecture and Organisation, Vol. 11, 1870-1970*, London, Henley, Boston: Routledge & Kegan Paul
- Seaman, C.M.E. (1977), *Christ's Hospital, the Last Years in London*, London: Ian Allan
- Sheppard, F.H.W. (ed.) (1975), *Survey of London: Vol. 38, South Kensington and the Science and Art Department*, South Kensington Museums Area, London: The Athlone Press
- Sheppard, F.H.W. (ed.), (1975), *Survey of London, Vol.38, The Museum Area of South Kensington and Westminster*: London: The Athlone Press
- Sheppard, P.A, rev. Falconer. I. (2004), '*Walker, Sir Gilbert Thomas (1868-1958)*', *Oxford Dictionary of National Biography*, Oxford: Oxford University Press
- Shrosbree, C. (1988), *Public Schools and Private Education, The Clarendon Commission, 1861-1864 and the Public Schools Acts*, Manchester: Manchester University Press
- Simon, B. (1960/1966), *Studies in the History of Education 1780-1870*, London: Lawrence & Wishart
- Simon, B. (1965), *Education and the Labour Movement, 1870-1920*, London: Lawrence & Wishart
- Simon, B. and Bradley, I. (eds.) (1975), *The Victorian Public School*, Dublin: Gill and Macmillan
- Smith, R. (2004), '*Carpenter, William Benjamin (1813-1885)*', *Oxford Dictionary of National Biography*, Oxford: Oxford University Press
- Smith, S. (1976), *Alfred Waterhouse, Civic Grandeur*, in Fawcett, J. (ed.), *Seven Victorian Architects*, London: Thames & Hudson
- Spooner, H.M. rev. Chapman, M.D, (2004) '*Temple, Frederick, 1821-1902*', *Oxford Dictionary of National Biography*, Oxford: Oxford University Press
- Steele, D. (2004), '*Palmer, Roundell, first earl of Selborne (1812-1895), lord chancellor*', *Oxford Dictionary of National Biography*, Oxford: Oxford University Press
- Steele, D. (2004), '*Stanley, Edward Henry, 15th Earl of Derby (1826-1893)*', *Oxford Dictionary of National Biography*, Oxford: Oxford University Press
- Stewart, W.A.C. (1953), *Quakers and Education, As Seen in Their Schools in England*, London: The Epworth Press
- Stratchey, L. (1918), *Eminent Victorians*, London: Chatto & Windus
- Sutton, A.F. (2004/2008) '*Colet, Sir Henry (c.1430–1505)*', *Oxford Dictionary of National Biography*, Oxford: Oxford University Press
- Summerson, J. (1945/1978), *Georgian London*, Harmondsworth: Penguin

- Summerson, J. (1970), *A Victorian Competition: The Royal Courts of Justice in Victorian Architecture, Four Studies in Evaluation*, New York and London: Columbia University Press
- Summerson, J. (1973a), *London, the Artefact*, in Dyos, H.J. and Wolff, M. (1973), *The Victorian City, Images and Realities*, Vol.1, London and Boston: Routledge & Kegan Paul
- Summerson, J. (1973b), *The London Building World of the 1860s*, London: Thames and Hudson
- Summerson, J., rev. Mitchell, R. (2004/2011), 'Rendel, Harry Stuart Goodhart- (1887-1959), architect', *Oxford Dictionary of National Biography*, Oxford: Oxford University Press
- Tanner, L.E. (1923), *Westminster School Its Buildings and their Associations*, London: Philip Allan & Co
- Thompson, E.P. (1978), *The Poverty of Theory*, Merlin Press
- Thrupp, S.L. (1948/1962), *The Merchant Class of Medieval London*, Ann Arbor: Ann Arbor Paperback, University of Michigan
- Tillyard, A.I. (1913), *A History of University Reform from 1800 AD to the Present Time*, Cambridge: W. Heffer and Sons Ltd
- Tosh (2002, revised 3rd edition), *The Pursuit of History, Aims, Methods and New Directions in the Study of Modern History*, London: Longman
- Tosh, J. (2015, sixth edition), *The Pursuit of History, Aims, Methods and New Directions in the Study of History*, London and New York: Routledge
- Trafford, C. (ed.) (2009), 'The Best School of All', *150 years of Clifton College*, London: Clifton College and Third Millennium Publishing Ltd
- Trapp, J.B. (2004), 'Colet, John (1467–1519)', *Oxford Dictionary of National Biography*, Oxford University Press
- Trott, T. (2001), *The Archive Photograph Series, King Edward's School Birmingham*, Stroud: Tempus
- Vickery, M.B. (1999), *Buildings for Bluestockings, The Architecture and Social History of Women's Colleges in Late Victorian England*, London, Cranbury, Mississauga: Associated University Presses
- Viñao, A. (2005), *The School Head's Office as Territory and Place: location and physical layout in the first Spanish graded schools* in Lawn M. and Grosvenor I. (eds.), *Materialities of Schooling*, Oxford: Symposium Books
- Ward, W.H. (1965) *Victorian Oxford*, London: Frank Cass & Co. Ltd
- Waterhouse, P. (1990), *A Victorian Monument, the Building of Girton College*, Cambridge: Girton College
- Watkin, D. (1980), *The Rise of Architectural History*, London: The Architectural Press Ltd
- Watney, J. (1914), *An Account of the Mistery of Mercers of the City of London, Otherwise the Mercers' Company*, London: Blades, East and Blades

- Watson, F., rev. Creffield, C.A. (2004), '*Lupton, Joseph Hirst (1836-1905)*', *Oxford Dictionary of National Biography*, Oxford: Oxford University Press
- Watson, N. (1995), *Latymer Upper School, A History of the School and its Foundation*, London: James & James
- Watson, N. (2007), *A Tradition for Freedom, The Story of University College School*, London: James & James
- Watson, N. (2015), *MGS, A History at 500*, London: Third Millennium Publishing
- Watt, I. (1957), *The Rise of the Novel: Studies in Defoe, Richardson and Fielding*, London: Chatto & Windus
- Webb, E.J., Campbell, D., Schwartz, R., Sechrest, L. (1966), *Unobtrusive Measures: Nonreactive Research in the Social Sciences*, London: Rand McNally
- Weiner, D.E.B. (1994), *Architecture and Social Reform in Late Victorian England*, Manchester: Manchester University Press
- Wheeler, R. (2006), *Palmer's Pilgrimage: The Life of William Palmer of Magdalen*, Oxford: Oxford University Press
- White, H. (1973/2014), *Metahistory, The Historical Imagination in 19th-Century Europe*, Baltimore: John Hopkins Press
- Whittaker, J.M., rev. Sneddon, I.N. (2004) '*Watson, George Neville (1886-1965)*', *Oxford Dictionary of National Biography*, Oxford: Oxford University Press
- Whitworth, A. ed. (1985), *A Centenary History, A History of the City and Guilds College, 1885 to 1985*, London: Imperial College of Science and Technology
- Who Was Who*, 1st December, 2007, *Clay, Sir Felix (24 Nov. 1871-11 Nov., 1941), architect*, online at www.ukwhoswho.com (downloaded 16.8.2018)
- Whyte, W. (2006), *Oxford Jackson: architecture, education, status and style, 1835-1924*, Oxford: Oxford University Press
- Whyte, W. (2006), '*Robson, Edward Robert (1835-1917)*', *Oxford Dictionary of National Biography*, Oxford: Oxford University Press
- Whyte, W. (2015/ 2016), *Redbrick, A Social and Architectural History of Britain's Civic Universities*, Oxford: Oxford University Press
- Wilkinson, R. (1964), *The Prefects, British Leadership and the Public School Tradition*, London: Oxford University Press
- Wilson, F.M.G. (2004), *The University of London 1858-1900, The Politics of Senate and Convocation*, Woodbridge and Rochester NY: The Boydell Press
- Yanni, C. (1999), *Nature's Museums, Victorian Science and the Architecture of Display*, London: Athlone Press
- Yin, R.K. (1994), *Case Study Research: Design and Methods*, London: Sage Publications

Young, M.F.D. (1971), *Knowledge and Control: New Directions in the Sociology of Education*, London: Collier Macmillan

ARTICLES

Bendixson, T., 'Moving St. Paul's', *The Spectator*, 26th June 1964, p.17

Brown, R.D. (2003), 'Microhistory and the Post-Modern Challenge', *Journal of the Early Republic*, Vol.23, No.1 (Spring 2003), pp.1-20, University of Pennsylvania Press on behalf of the Society for Historians of the Early American Republic

Burke, C., Cunningham, P., Grosvenor, I. "Putting education in its place": space, place and materialities in the history of education', *History of Education*, Vol.39, No.6, November 2010, pp.677-680.

Engel, M., 'English Institutions: Livery Companies', *Financial Times*, 21st December, 2012

Frederickson, G.M., 'Wise Man', *New York Review of Books*, February 28th, 2002, p.37

Chartier, R., 'Le Temps des Doutes', *Le Monde*, March 18, 1993

De Coninck-Smith, N., 'Danish and British Architects at Work: A Micro-Study of Architectural Encounters after the Second World War', *History of Education* Vol.39, No.6, November 2010, pp.713-730

Galleywood Historical Society, No. 35, September 2011

Ginzburg, C. (1979), 'Roots of A Scientific Paradigm', *Theory and Society*, vii

Girouard, M. (1971), 'The Queen Anne Style of Architecture', *Listener*, LXXXV, pp.504-6

Greenacre, F.W. (1968), 'The Best Building in the Neighbourhood', *Victorian Society Circular*

Grendi, E. (1972), pp.506-20, 'Microanalisi e storia sociale' in *Quaderni Storici* 7, and 'Polanyi: Dall'antropologia economica alla microanalisi storica' (1978), Milan

Hardcastle, J. (2013), "Photographers are the devil": an essay in the historiography of photographing schools', *History of Education*, 4th July, 2013, pp.659-674

Jenkins, F.I., 'The Making of a Municipal Palace', *Country Life*, 16th February, 1967

Lowe, R.A., Knight, R. 'Building the Ivory Tower: the social functions of late 19th-century collegiate architecture', in *Studies in Higher Education* 7 (1982), pp.81-9

Lowe, R. ((1979), 'Studying School Architecture: Some Reflections', in *Westminster Studies in Education*, Vol.2. Issue 1, pp.45-52

Mallinson, V. (June 1968), *Comparative Education*, Vol.4, No.3

Salmon, F., *Summer Newsletter 2014, The Victorian Society in Manchester*, online at <https://www.hoart.cam.ac.uk/Downloads/The%20Battle%20of%20the%20Styles> (downloaded 22.6.2018)

Saint, A. (2010), '*Battersea: Education in a London Parish since 1750*', *History of Education* Vol.39, No. 6, November 2010, pp.677-680

Schramm, W. (1971, December). '*Notes on Case Studies of Instructional Media Projects.*', Stanford University, California, Institute for Communication, online at <https://files.eric.ed.gov/fulltext/ED092145.pdf> (downloaded 20.4.2018)

Stone, L., '*The Revival of Narrative: Reflections on a New Old History*', in *Past & Present*, No.85 (November 1979), pp.3-24, Oxford: Oxford University Press on behalf of The Past and Present Society

Whyte, W. (2001), '*Rooms for the Torture and Shame of Scholars: The New Examination Schools and the Architecture of Reform*', *Oxoniensia* 66, pp.85-124

Whyte, W., '*Building a Public School Community, 1860-1910*', *History of Education: Journal of the History of Education Society* (November 2003), 32:6, pp.601-626.

UNPUBLISHED MATERIAL

a. Theses

Freedman, L. (2009), *Building Schools for the Future: A Necessary Investment to 'Raise Standards' or a Misconceived Programme of Party Ambition?* Unpublished MA thesis, London: Institute of Education

Smith, S.A. (1970-71), *Alfred Waterhouse*, unpublished PhD thesis, Courtauld Institute, University of London

Hamilton, N.G. (1985), *A History of the Architecture and Ethos of the School Chapel*, unpublished PhD Thesis, Bristol: Bristol University

b. Conference Papers

Benito, A.E. (2001), '*The School in the City. School Architecture as Discourse and as Text*', paper presented at the International Standing Conference for the *History of Education*

Freedman, L. (2016), '*Building Schools for the Future: A Survey of which independent schools are building what – and why*'. Conference address at the International Boys' Schools Coalition conference held at Haberdashers' Aske's Boys School, 2ND, March, .2016

FIGURES



Figure 1. St Paul's School science block, 2013, by Nicholas Hare Architects

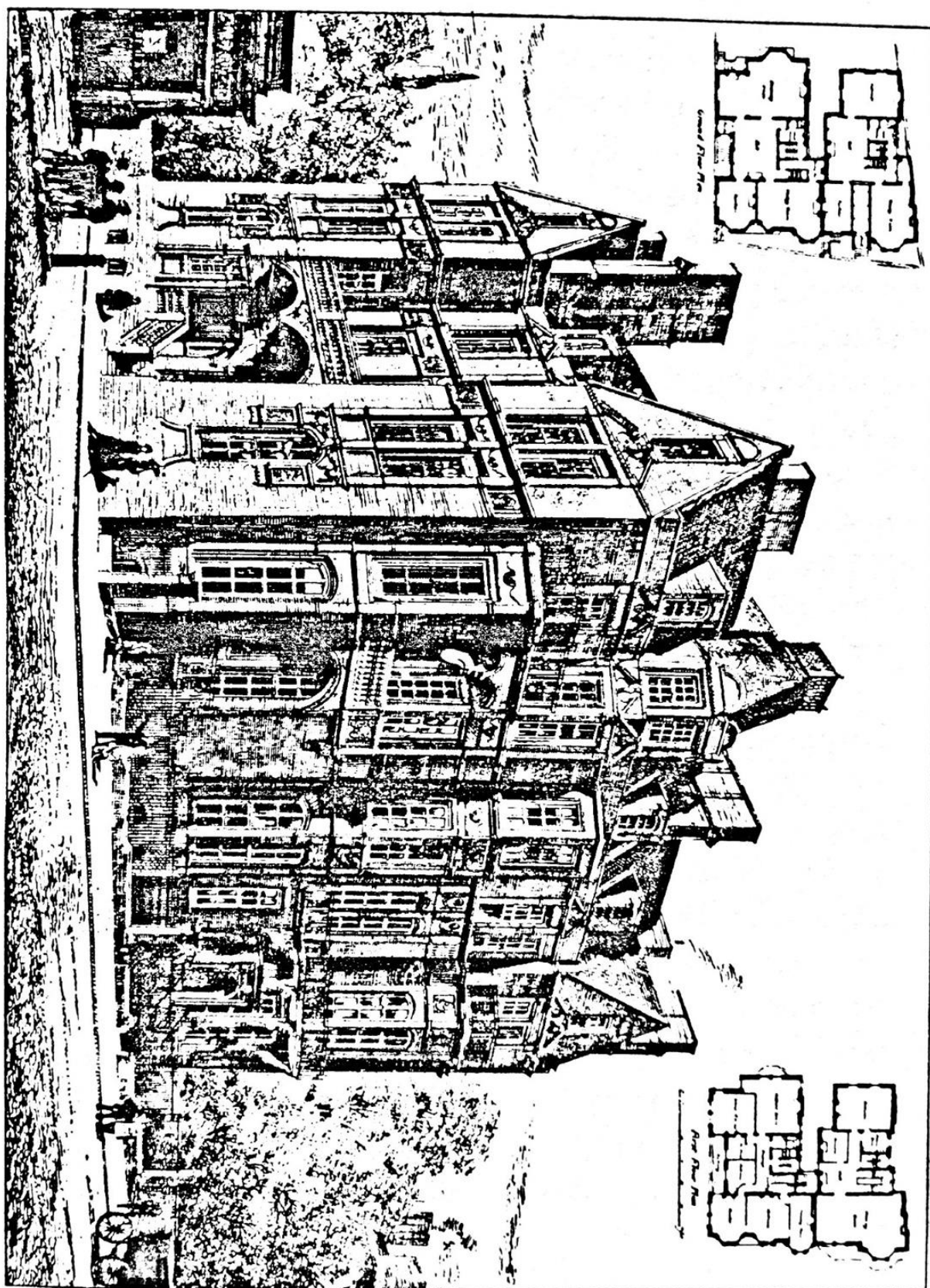
Figure 2. St Paul's school library, 2017, by Walters & Cohen Architects



Figure 3. St Paul's Hotel, Hammersmith, 1884, originally the High Master's house



Figure 4. St Paul's School, watercolour by Alfred Waterhouse, 1880



‘QUEEN ANNE’

Lowther Gardens, S. Kensington (1878)

Figure 5. Lowther Gardens Board School in the ‘Queen Anne’ style, 1878, by E.R. Robson



Plate 230 Dulwich College, Camberwell, London, 1866-70

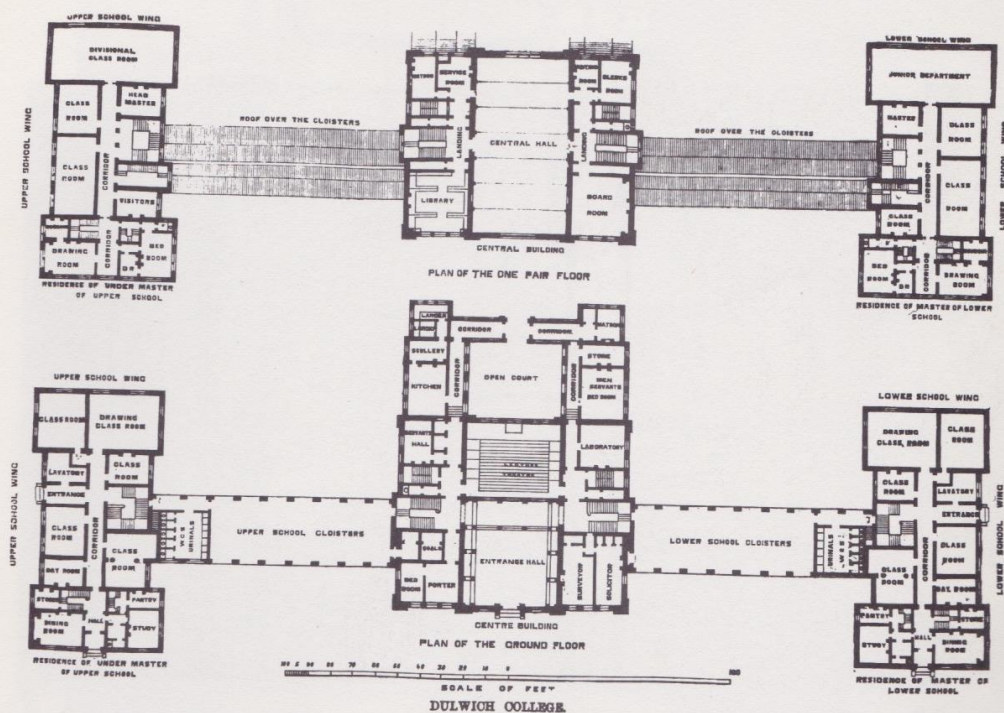


Plate 231 Dulwich College, plan, 1868

Figure 6. Elevation and plans of Dulwich College, 1870, by Charles Barry

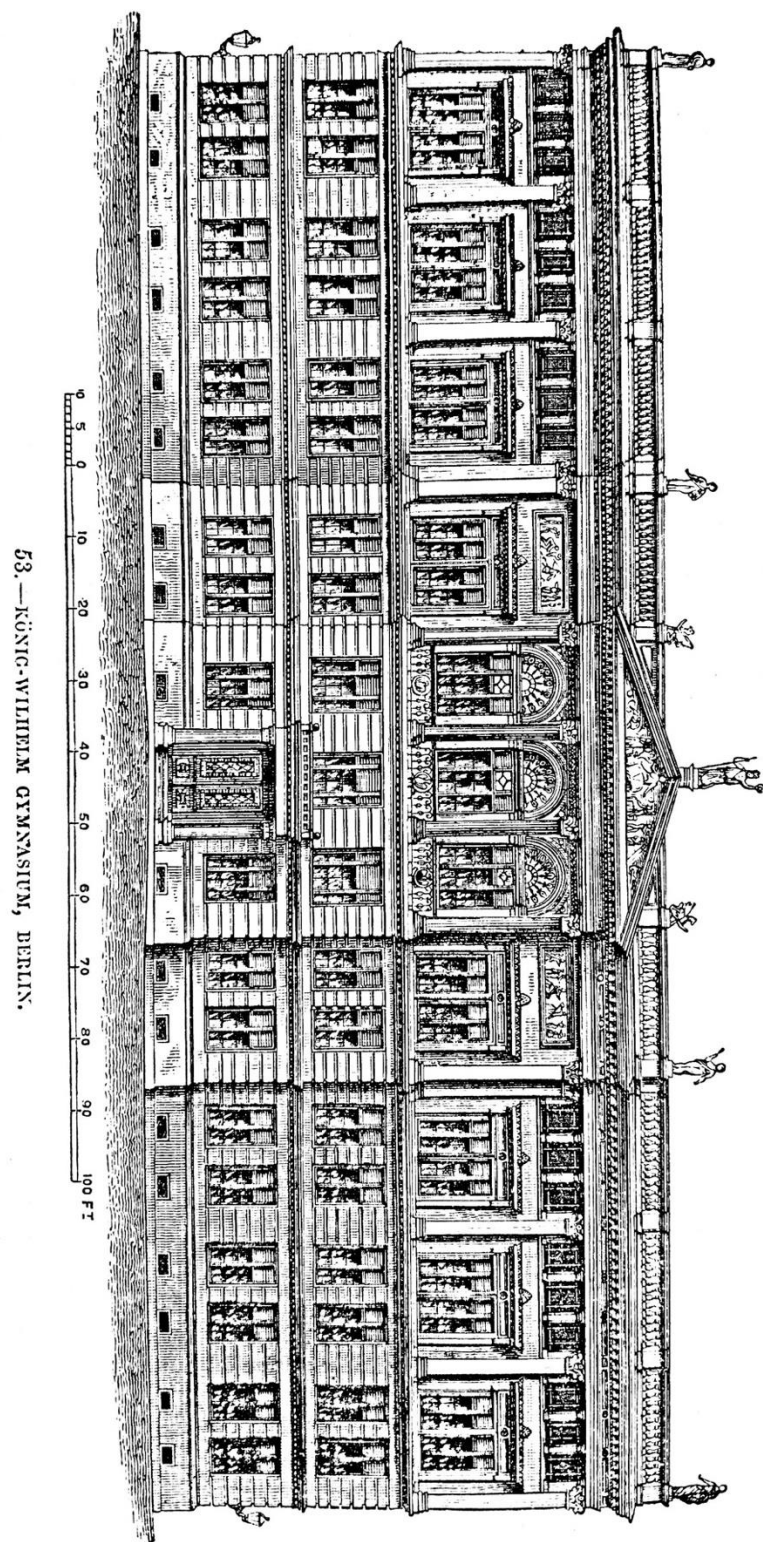
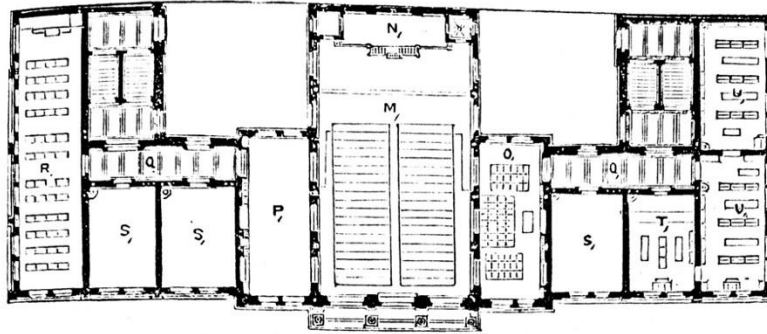


Figure 7. König Wilhelm Gymnasium, Berlin, 1865

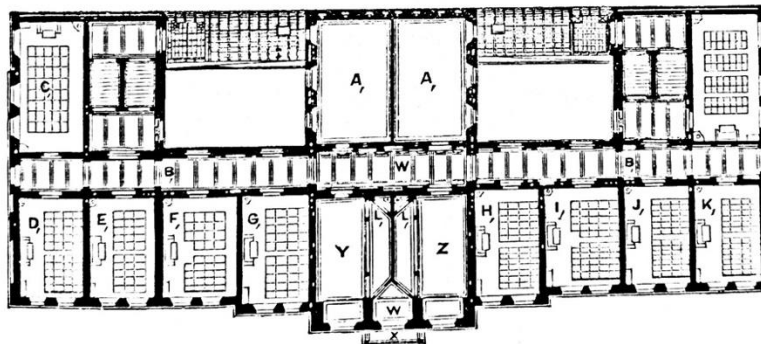
On the side of the Potsdam and Anhalt gates a spreading population, chiefly of the better classes, long ago required the



54.—PLAN OF SECOND FLOOR.

Reference.			
M.	Aula.	R.	Drawing Class.
N.	Dais.	S. S.	Reserve Class-rooms.
O.	Song School.	T.	Scholars' Library.
P.	Ante Room.	U. U.	School Library.
Q. Q.	Corridors.		

establishment of a higher school, and in 1856 a Pro-gymnasium was opened under the patronage of the King. The rapid growth

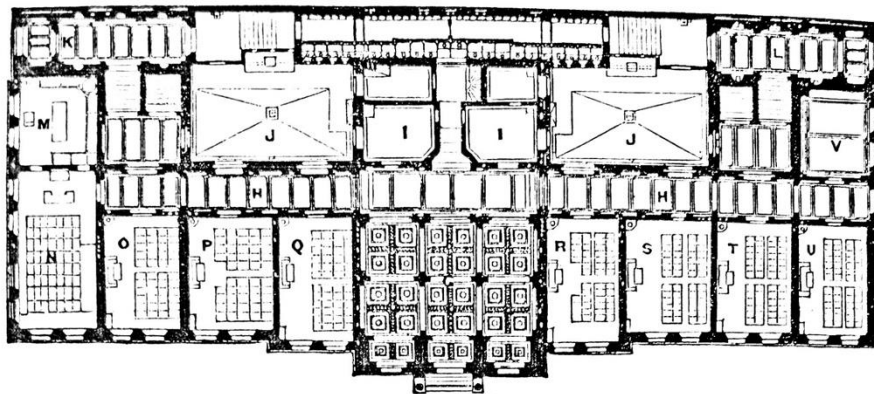


55.—PLAN OF FIRST FLOOR.

Reference.			
A. A.	Museum.	I.	Quinta (a). ¹
B. B.	Corridor.	J.	Sexta (a).
C.	Prima (a).	K.	" (b).
D.	Secunda (b).	L. L.	Teachers' Lavatories.
E.	" (a).	W.	Lobby.
F.	Tertia (a).	Y.	Directors' Room.
G.	Prima (b).	Z.	Conference and Teachers' Room.
H.	Quinta (b).		

of the neighbourhood soon rendered necessary a new building,

which, in turn, was opened Oct. 24th, 1865, under the title of the König-Wilhelm Gymnasium, or King William Grammar School

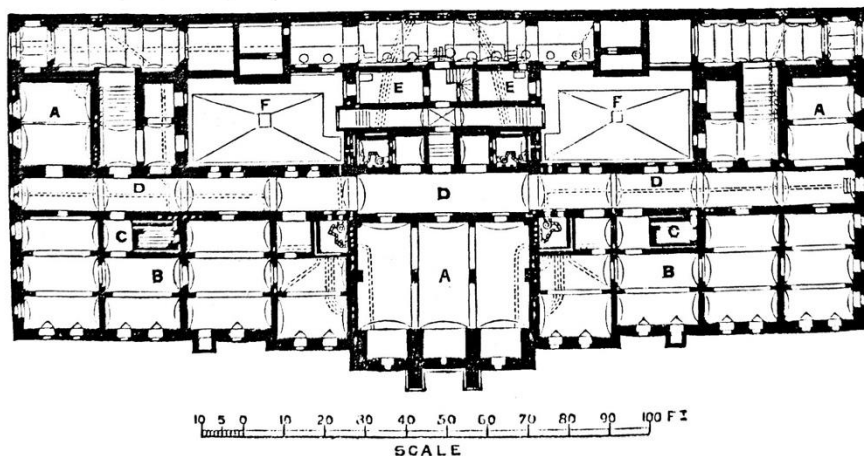


56.—GROUND PLAN.

Reference.

- | | | | |
|--------|------------------------------|----|-------------------|
| G. | Entrance Hall. | O. | Quarta (a). |
| H. II. | Corridors. | P. | Tertia (b). |
| I. | Caretaker's house. | Q. | Quarta (b). |
| J. J. | Courts. | R. | Third Class (b). |
| K. | Boys' Entrance to Gymnasium. | S. | Second Class (a). |
| L. | „ „ „ Vorschule. | T. | Third Class (a). |
| M. | Physical Apparatus. | U. | Second Class (b). |
| N. | „ „ Lecture-room. | V. | Treasurer. |

(woodcuts 53 to 57). The approach to the site is not at present



57.—BASEMENT PLAN.

Reference.

- | | | | |
|----|---------------|-------|----------------------------|
| A. | Cellar. | D. | Corridor. |
| B. | Cellar-space. | E. E. | Part of Caretaker's house. |
| C. | Boiler. | F. F. | Courts. |

particularly good, but a new one, directly opposite the entrance,

Figure 10-11. König Wilhelm Gymnasium, Berlin, 1865



Figure 12. The third school, 1823, by George Smith, Surveyor to the Mercers

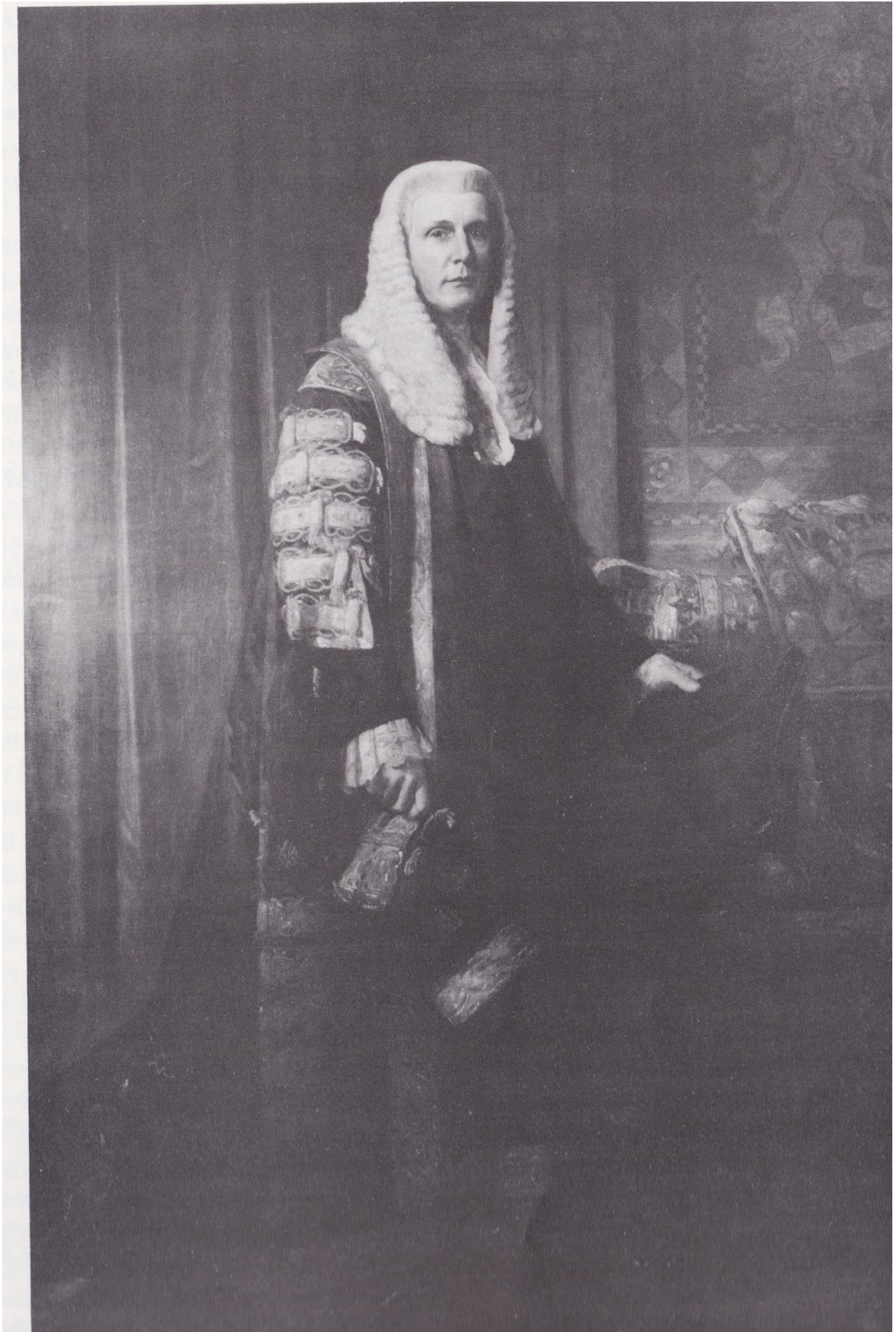


Figure 13. Roundell Palmer, Lord Selborne, 1872



Site of St. Paul's School by R. H. Harris

1. The site in 1878

Figure 14. The site chosen for the school

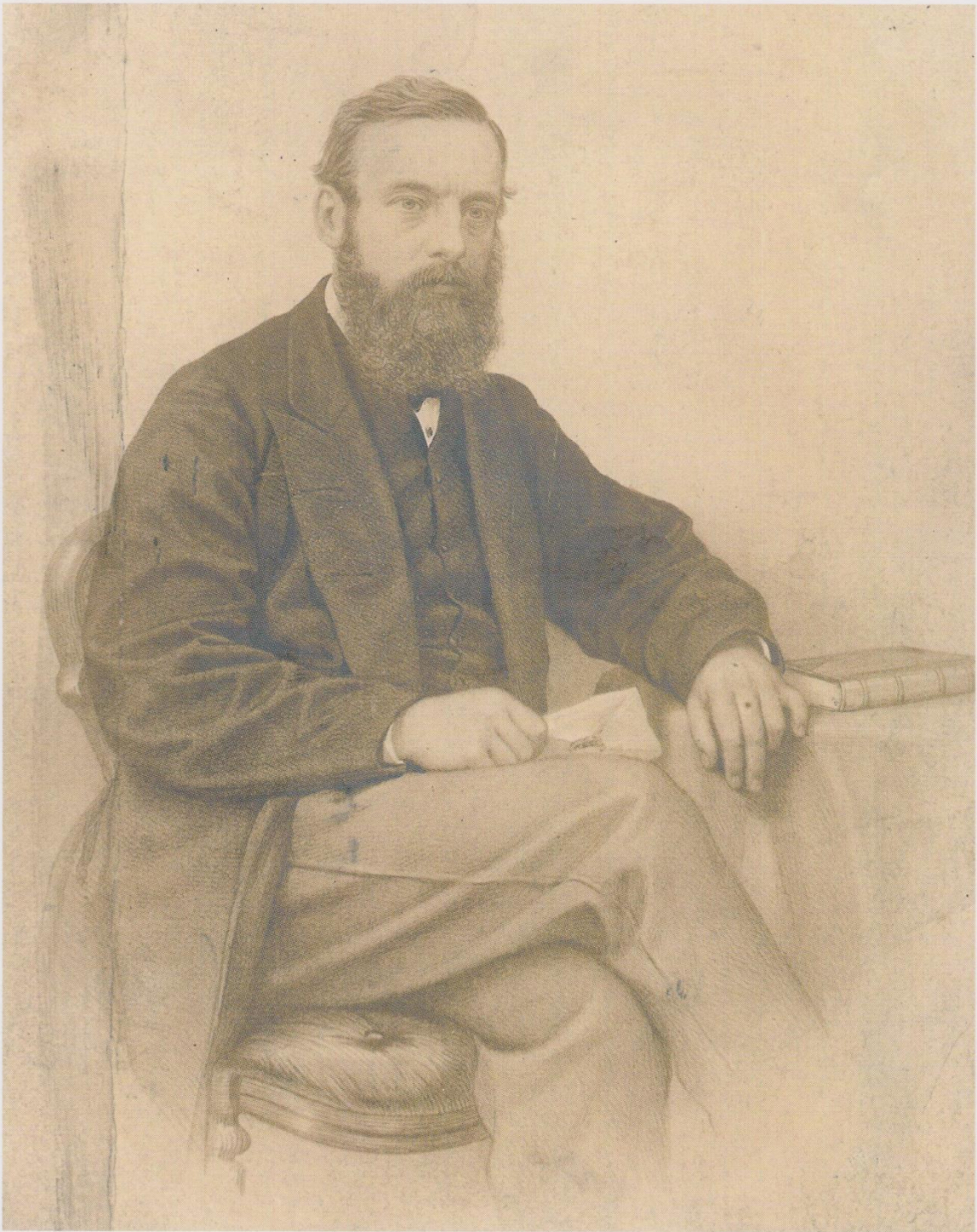


Figure 15. Frederick William Walker as a young man

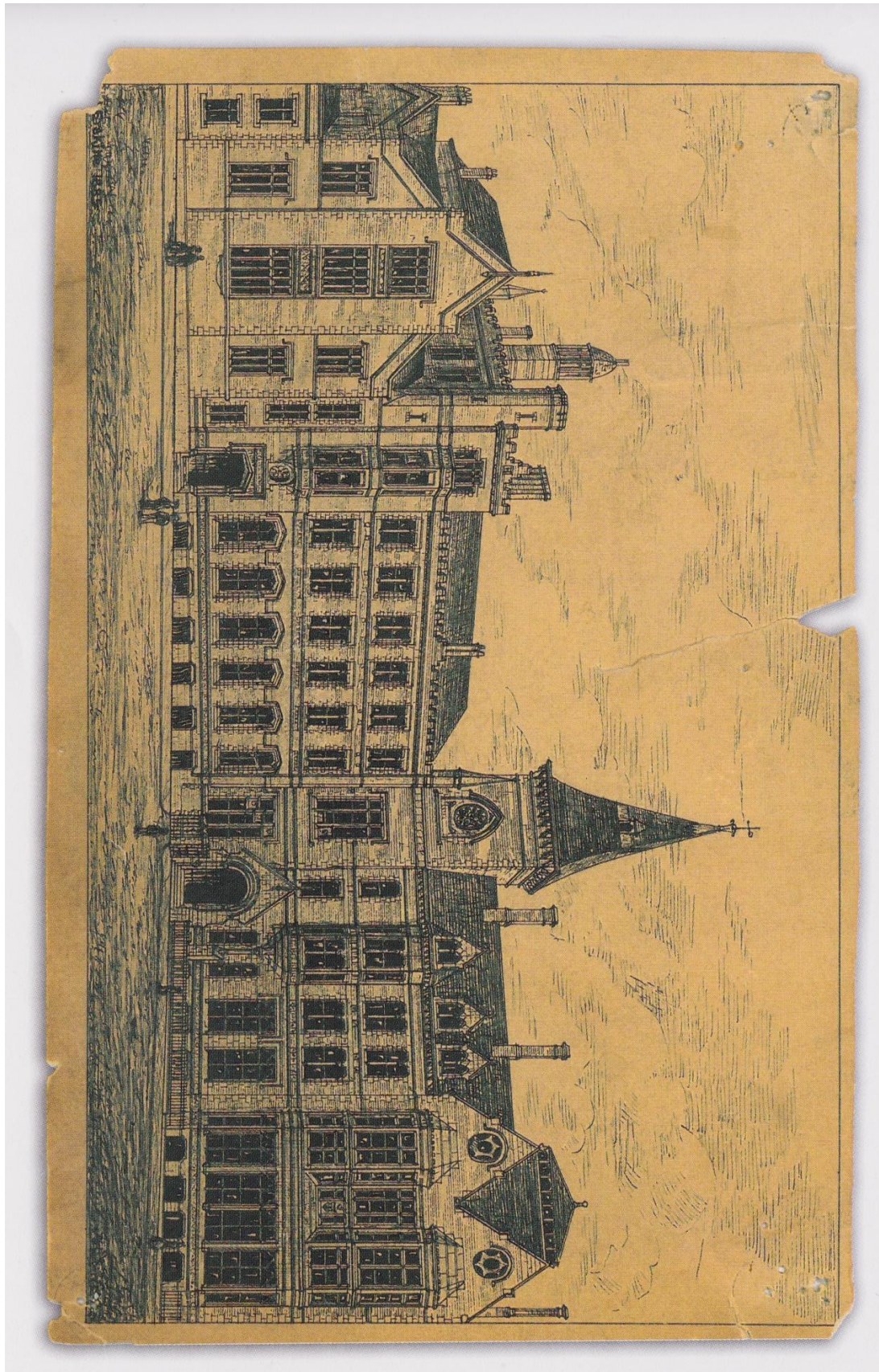


Figure 16. Manchester Grammar School's new building of 1871



Figure 17. Frederick William Walker in later years featured in *Vanity Fair* magazine

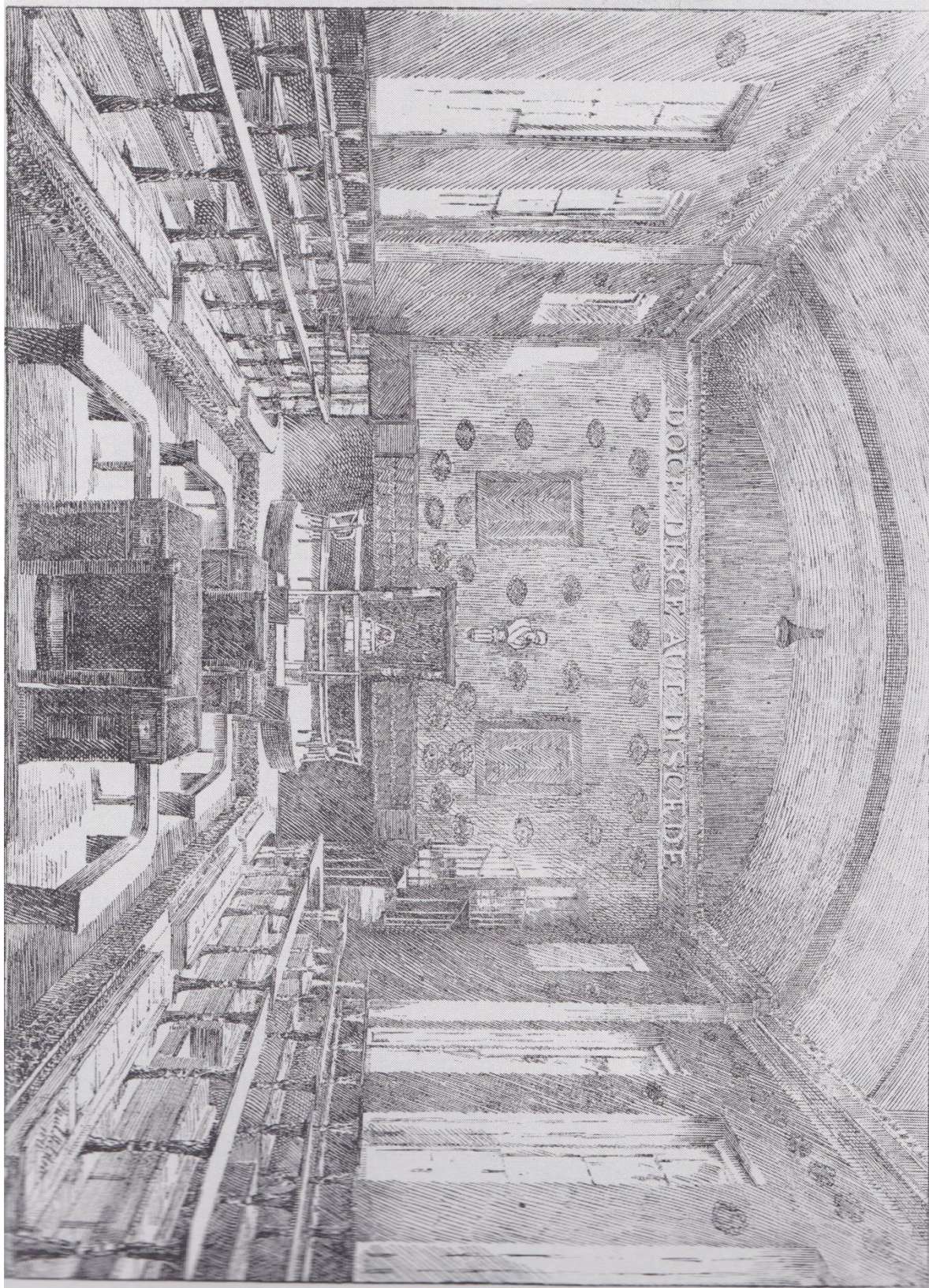


Figure 18. The schoolroom at St Paul's School on its City site in 1876

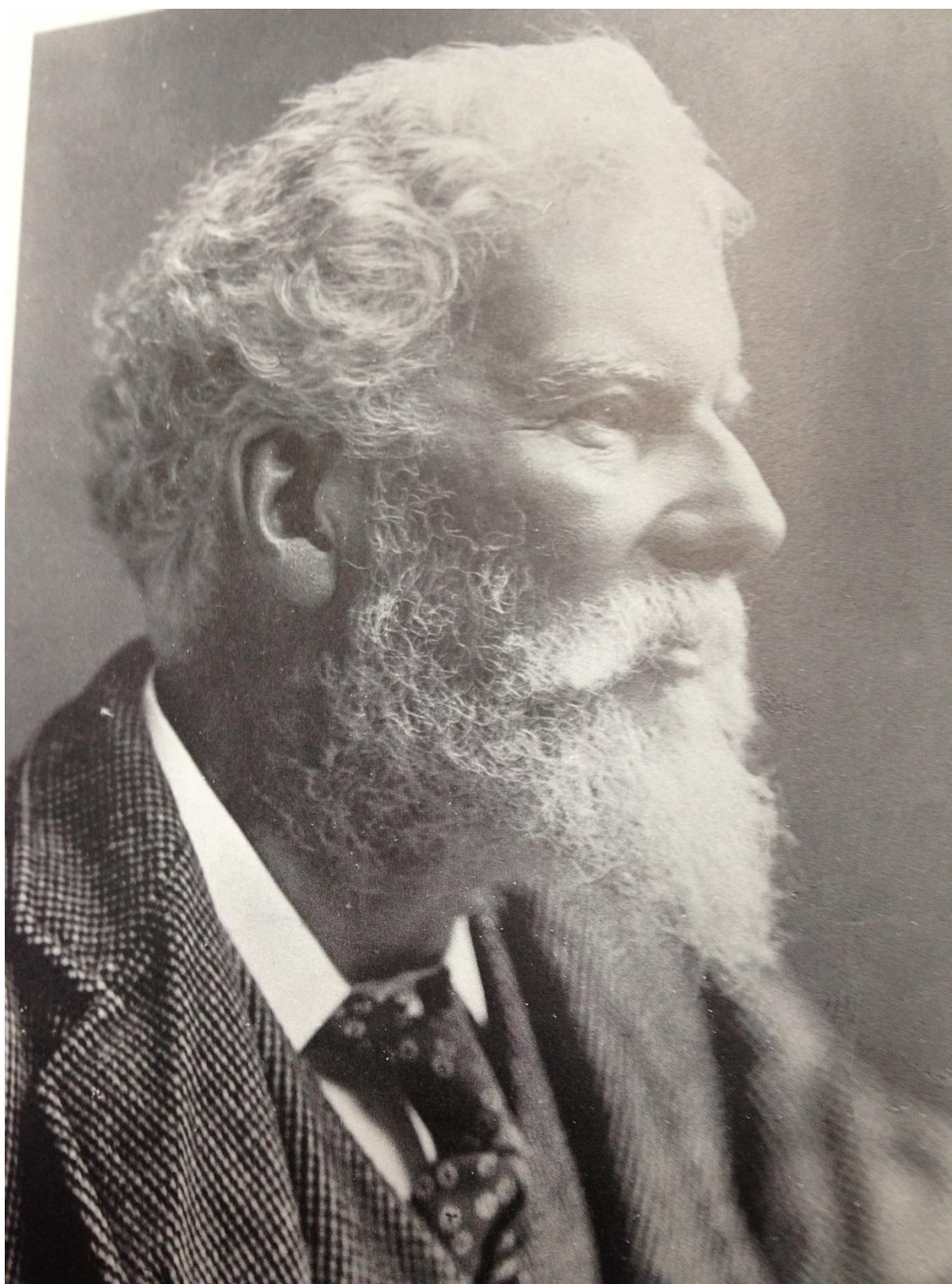


Figure 19. Alfred Waterhouse, c.1890

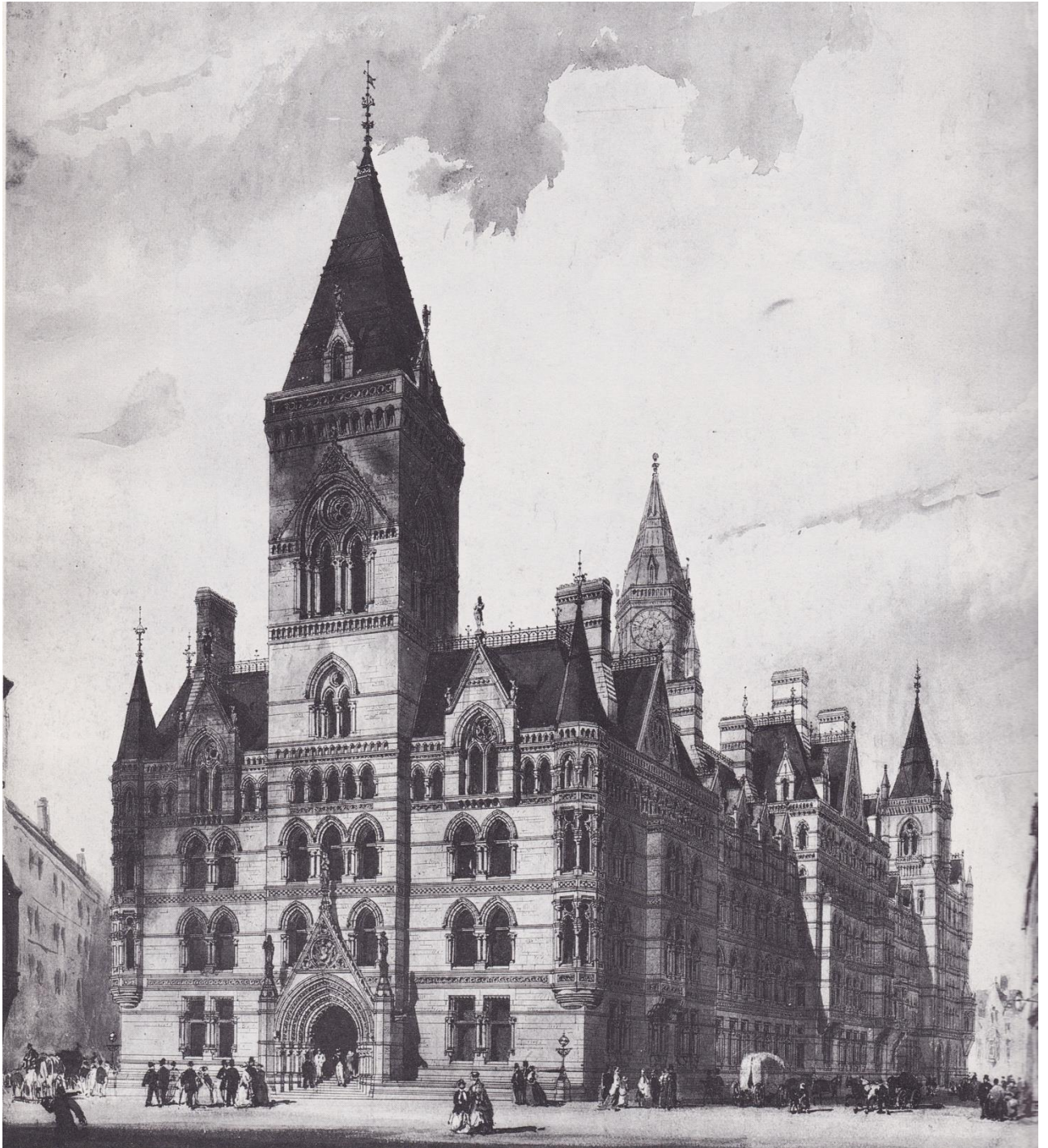


Figure 20. Manchester Town Hall, 1867, by Alfred Waterhouse



Figure 21. The Natural History Museum, 1870, by Alfred Waterhouse

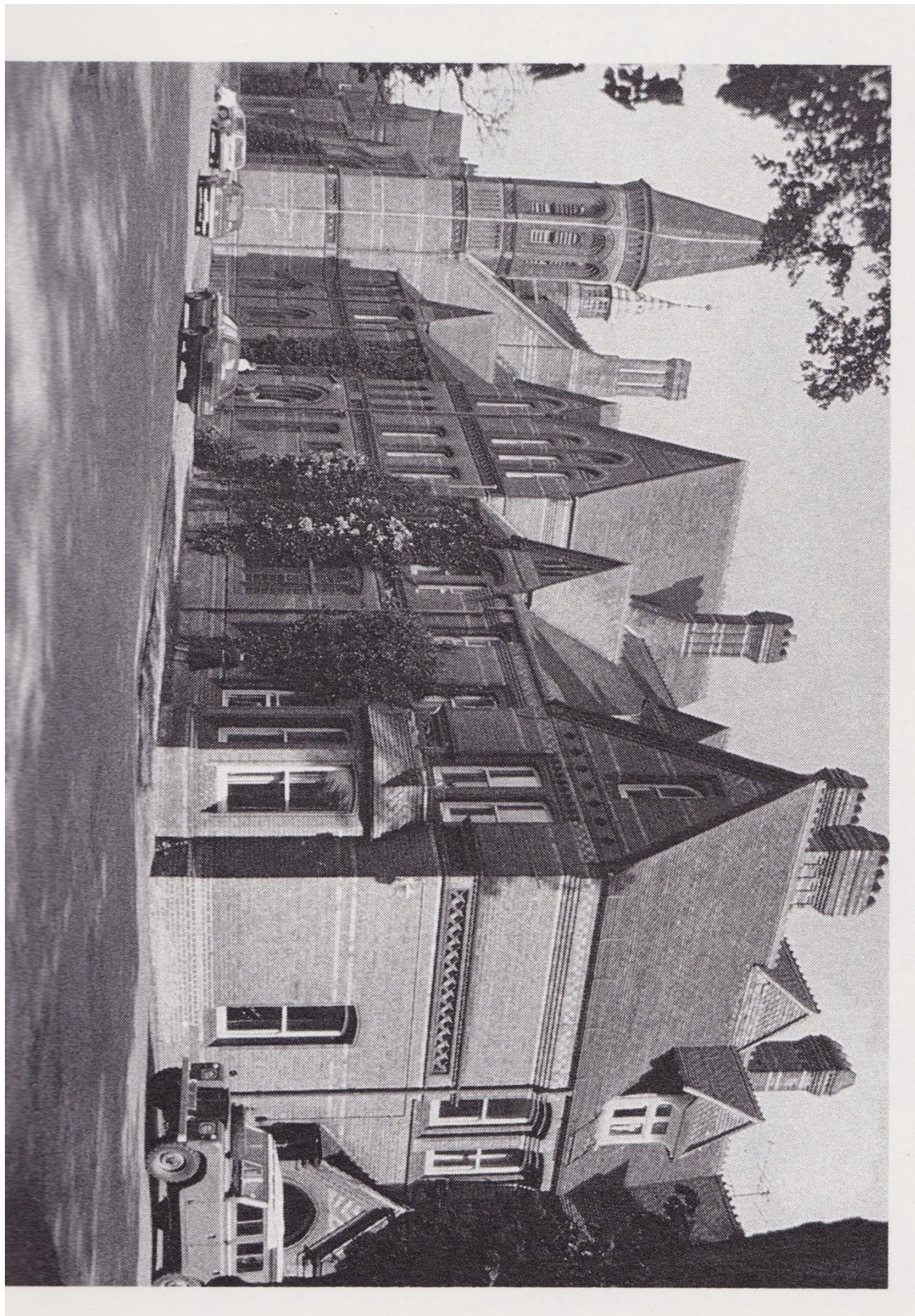


Figure 22. Reading Grammar School, 1867, by Alfred Waterhouse

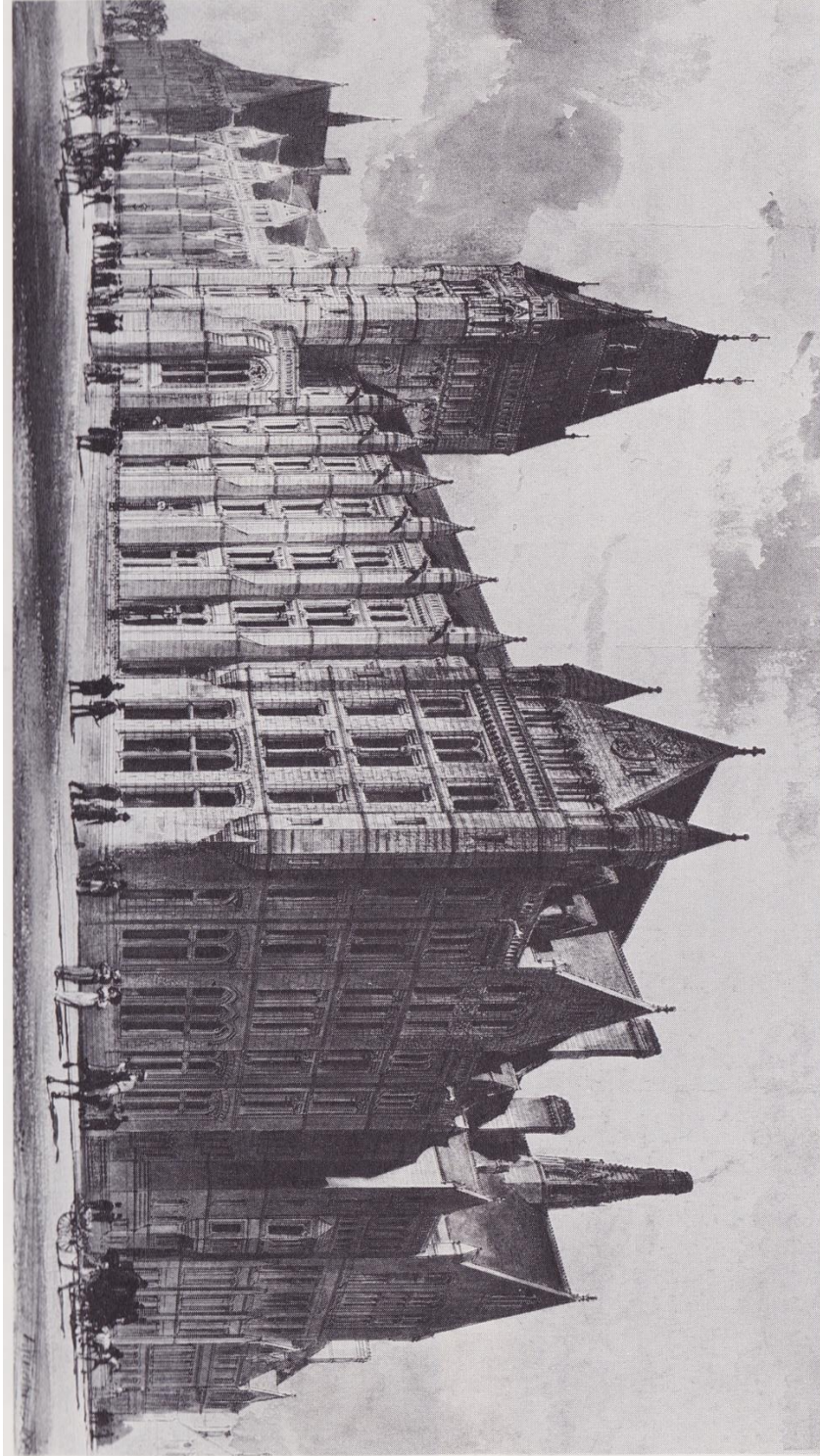


Figure 23. Owens College Manchester, 1869, by Alfred Waterhouse

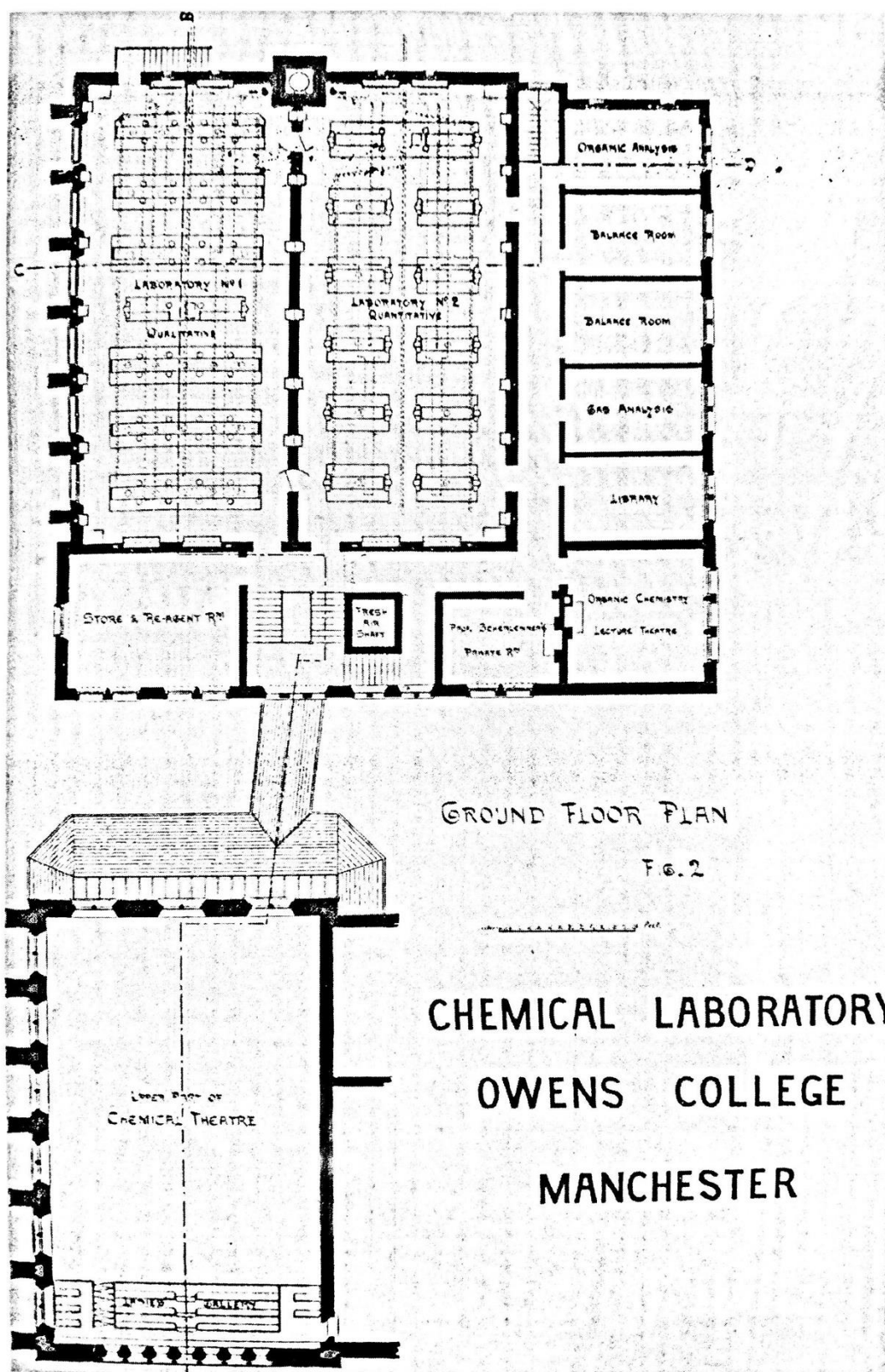


Figure 24. Alfred Waterhouse's plans for the Chemistry Laboratory at Owens College



Figure 25. City and Guilds Technical Institute London, 1883, by Alfred Waterhouse

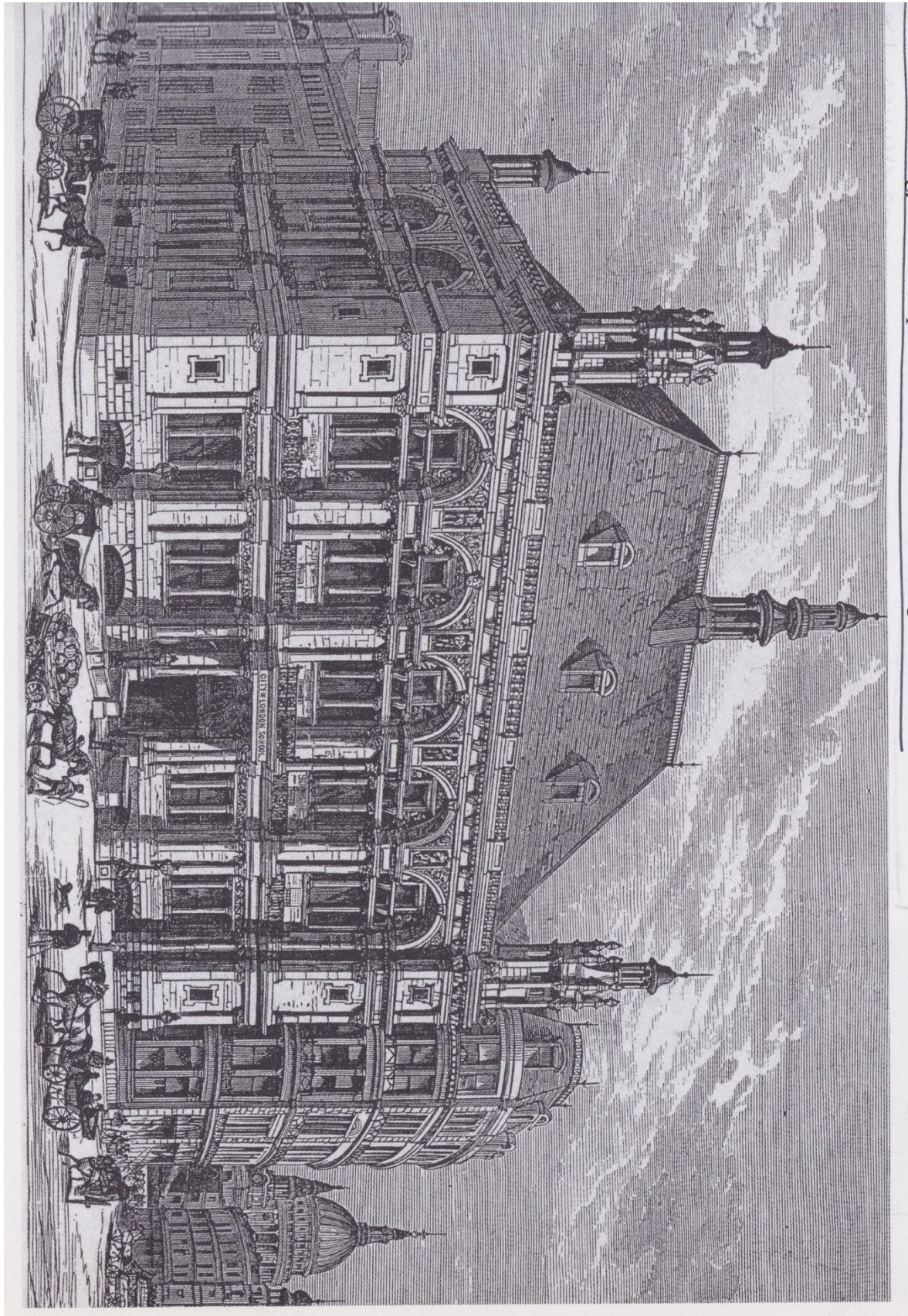
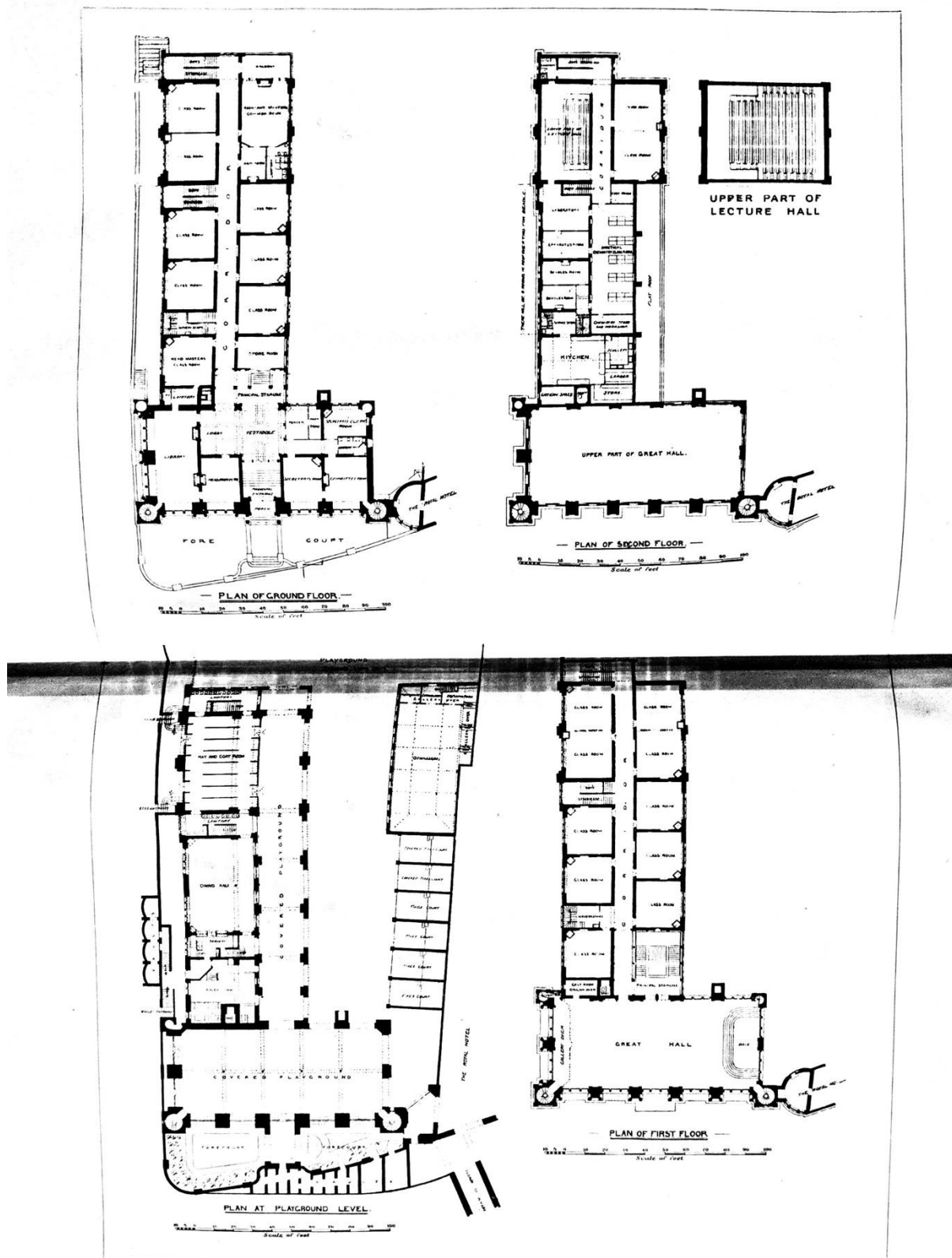


Figure 26. City of London School, by Davis and Emanuel, opened 1883



112-115. THE CITY OF LONDON SCHOOL.

Davis & Emanuel, Architects.

Figure 27. Plans for City of London School, by Davis and Emanuel



Figure 28. Elevation of the new building, 1882, by Alfred Waterhouse

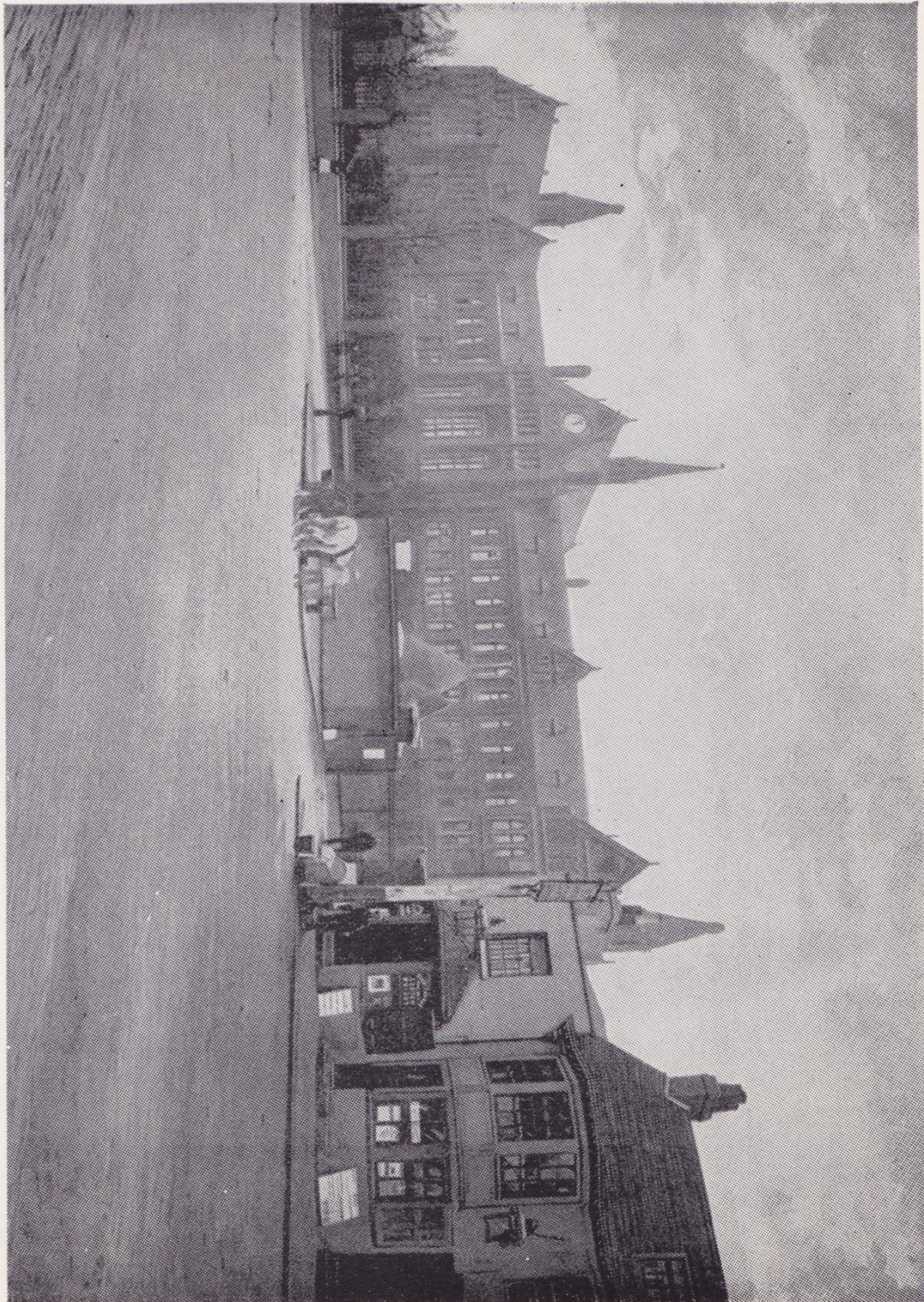


Figure 29. The new school on the little-travelled high road, c.1886

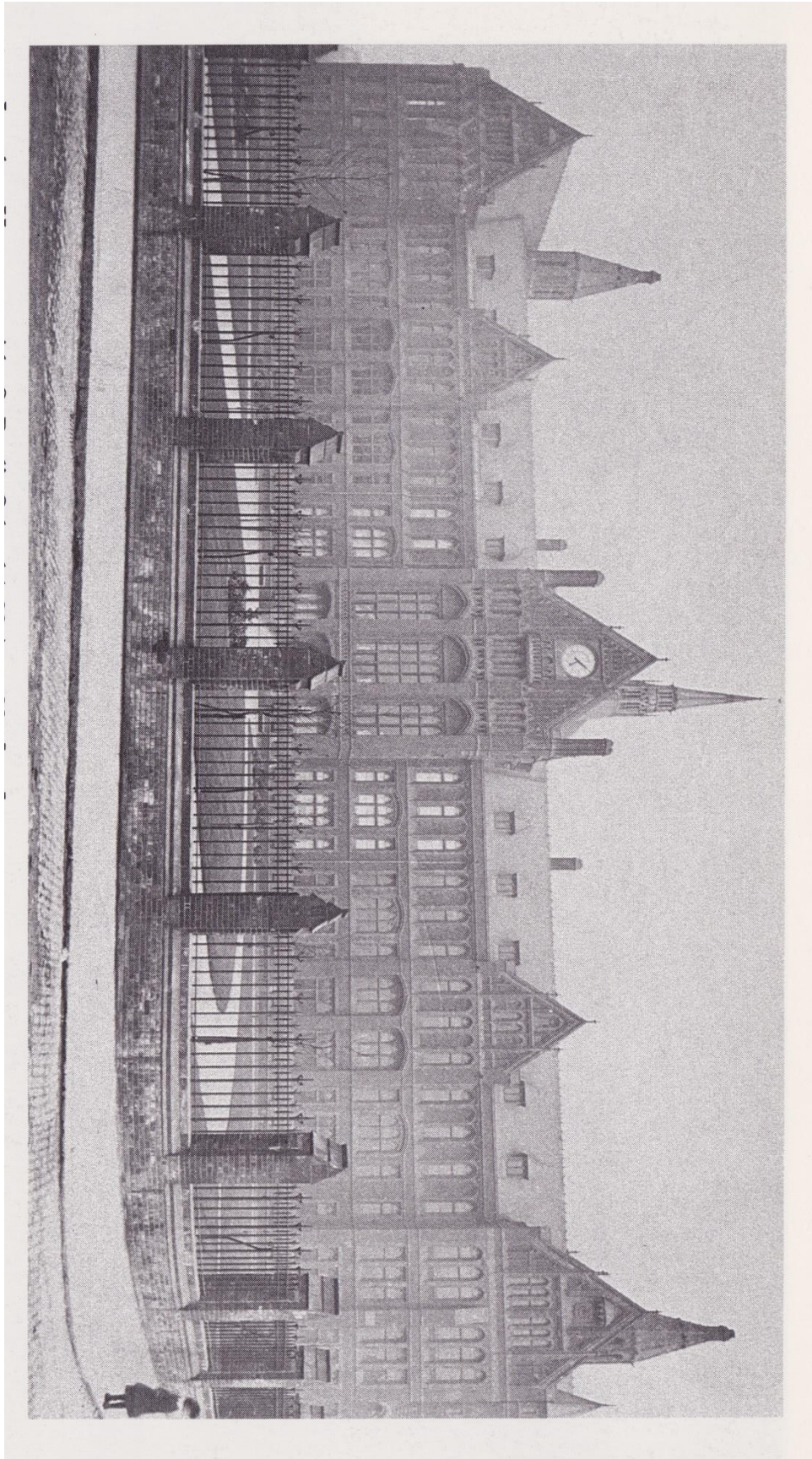


Figure 30. The northern front, c.1887

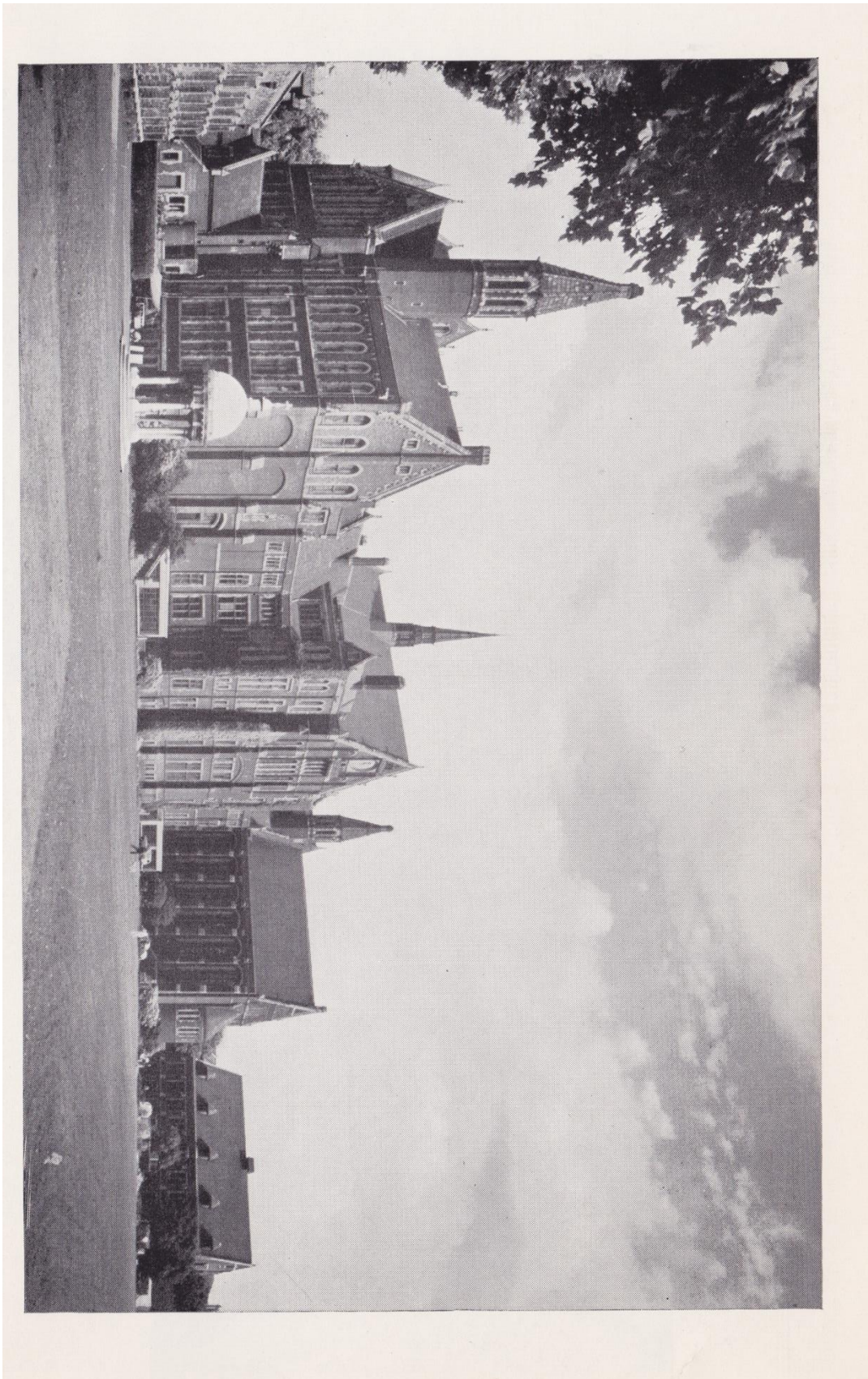


Figure 31. The southern front, 1880s

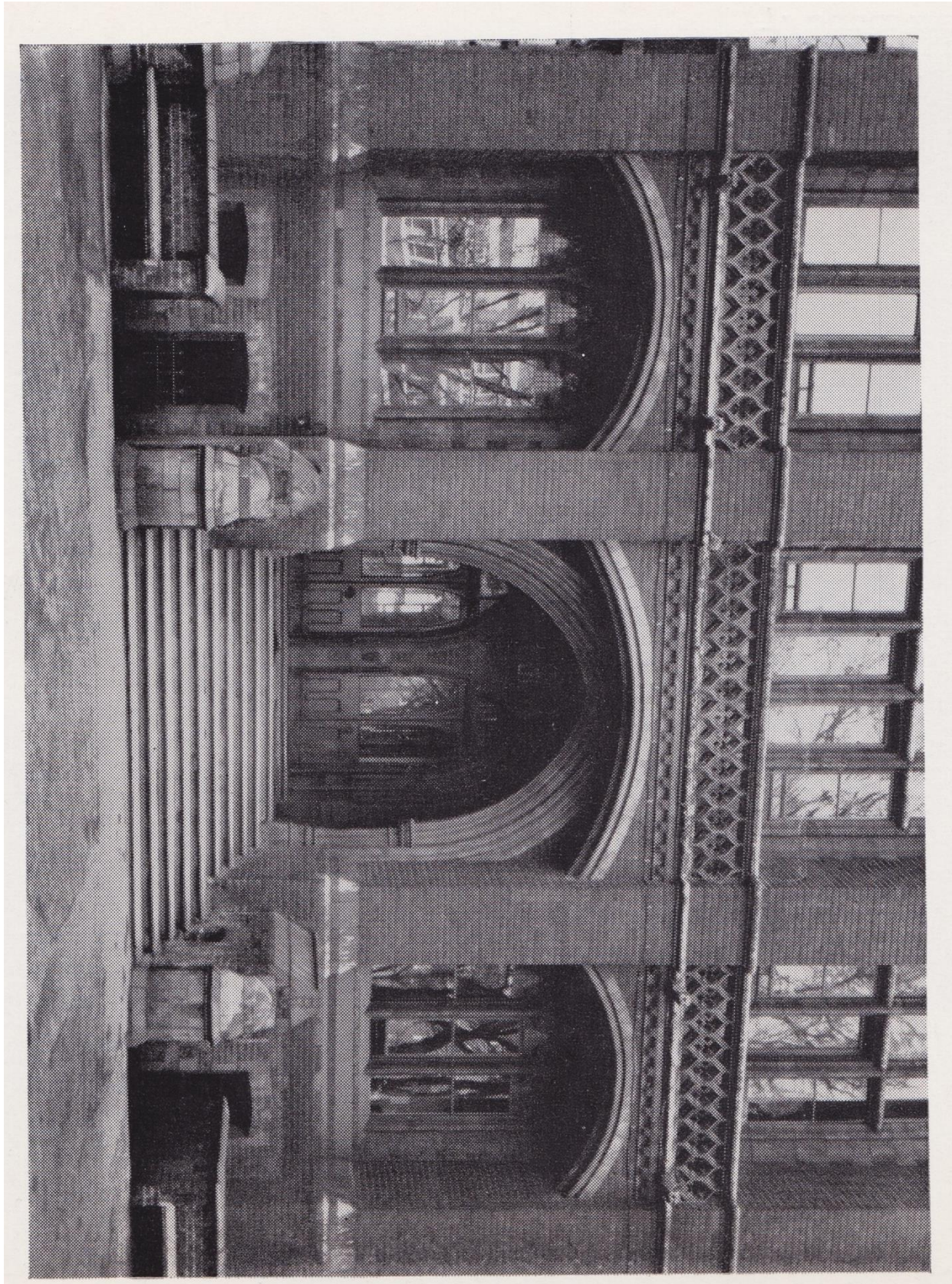


Figure 32. The relatively modest main entrance

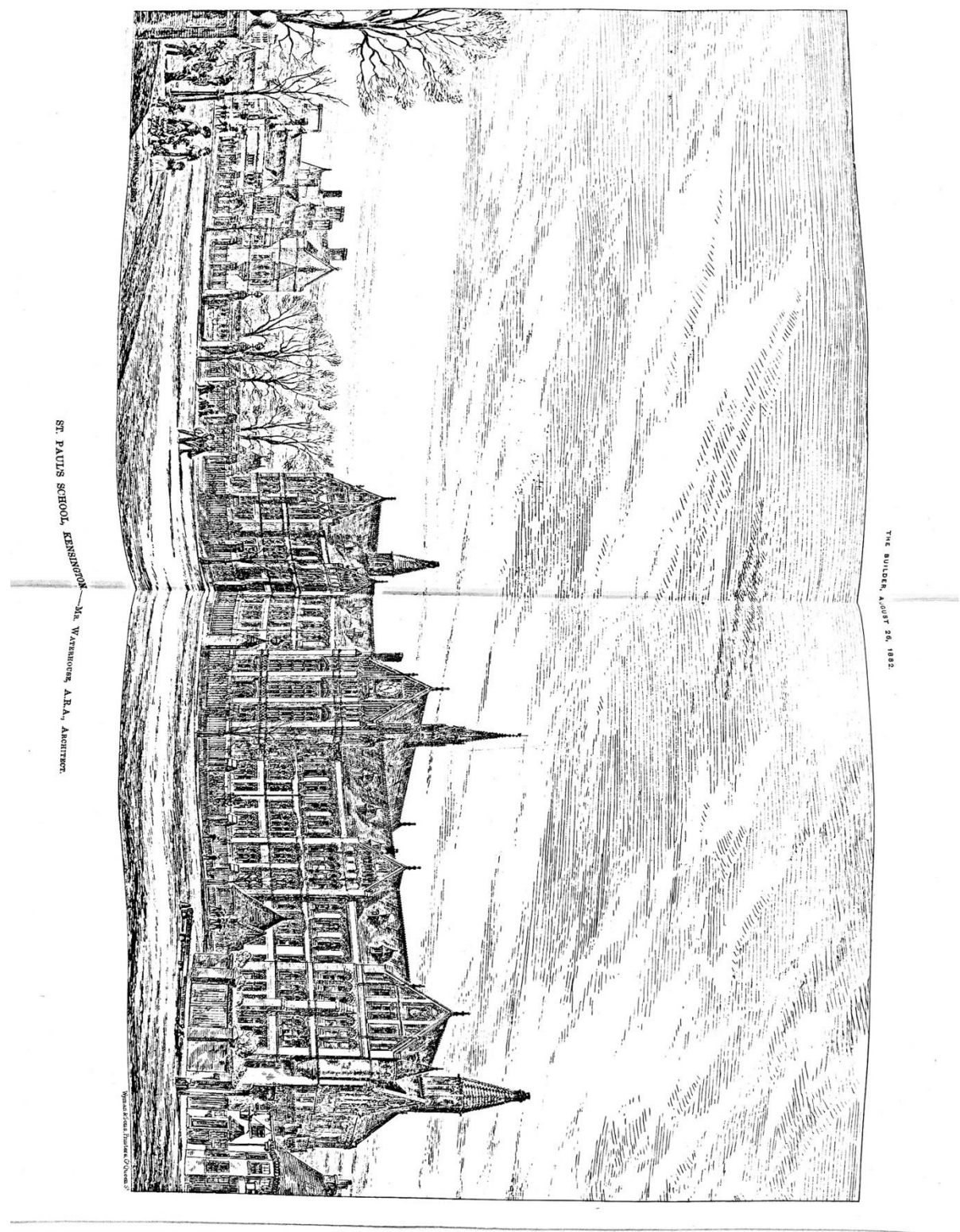
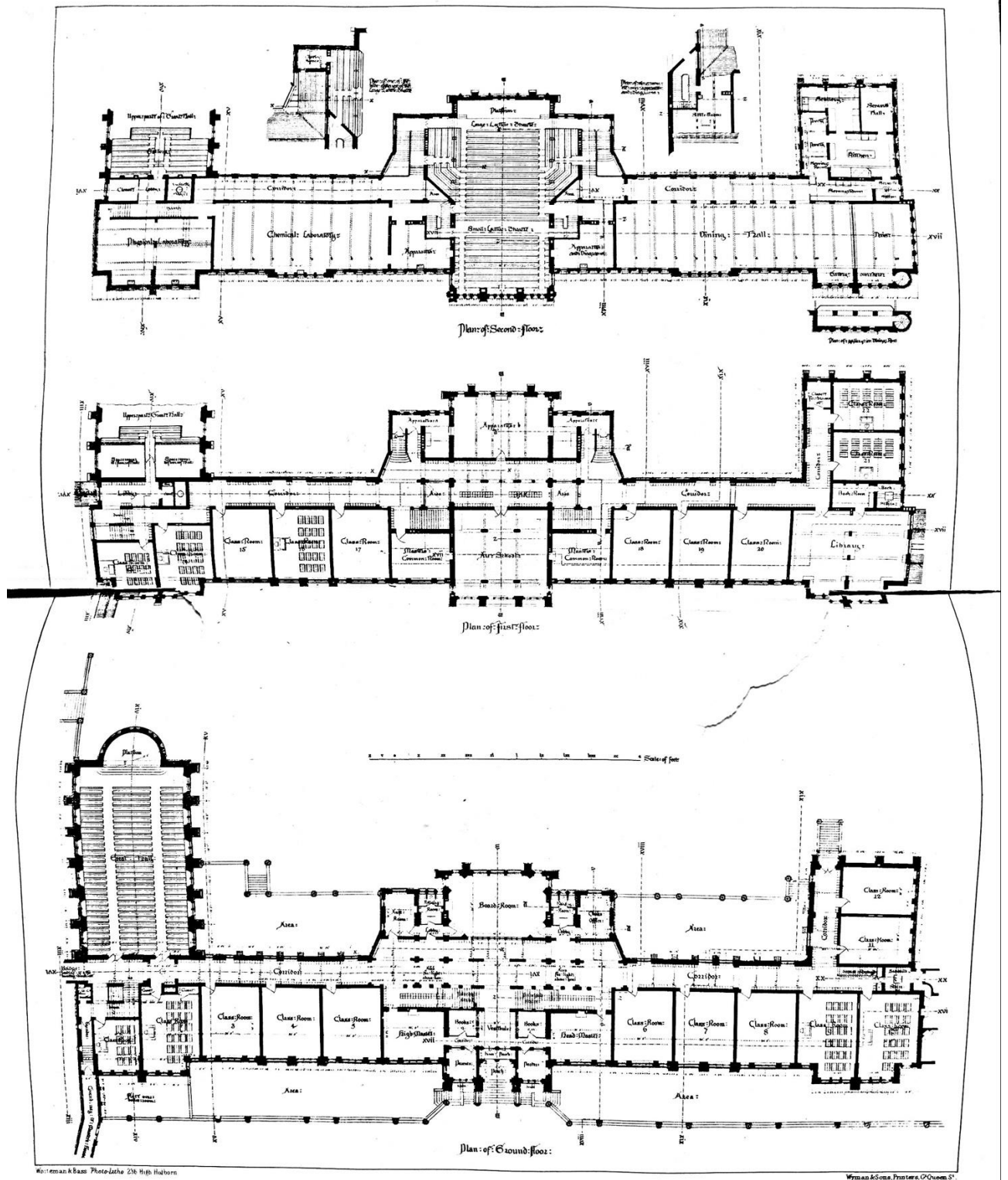
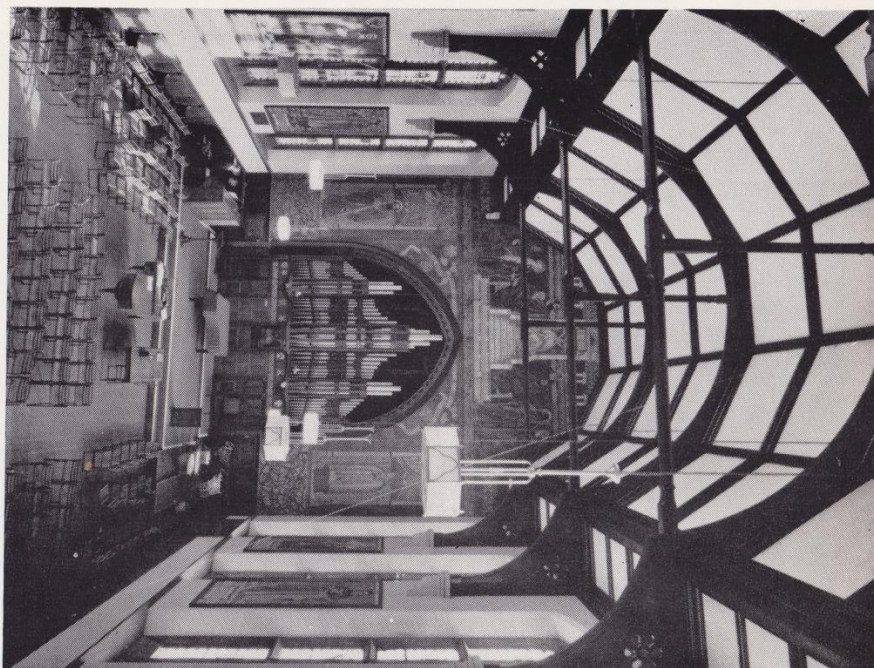


Figure 33. Waterhouse's drawing of the elevation, 1882, in *The Builder*

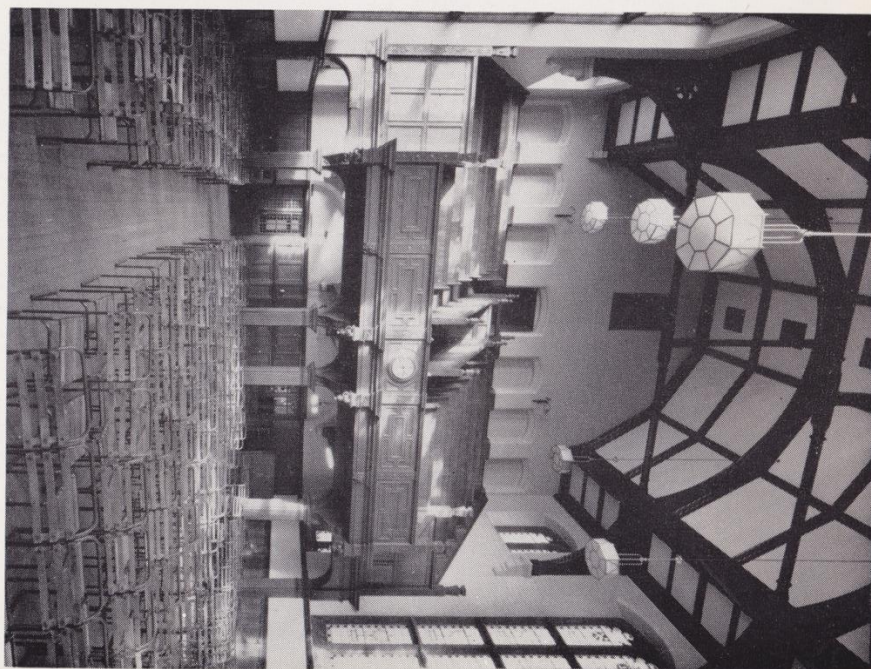


ST. PAUL'S SCHOOL, KENSINGTON.

Figure 34. Waterhouse's plans for the school, 1882, in *The Builder*



9.



10.

Figures 35 and 36. The Assembly Hall, St. Paul's School, c.1900

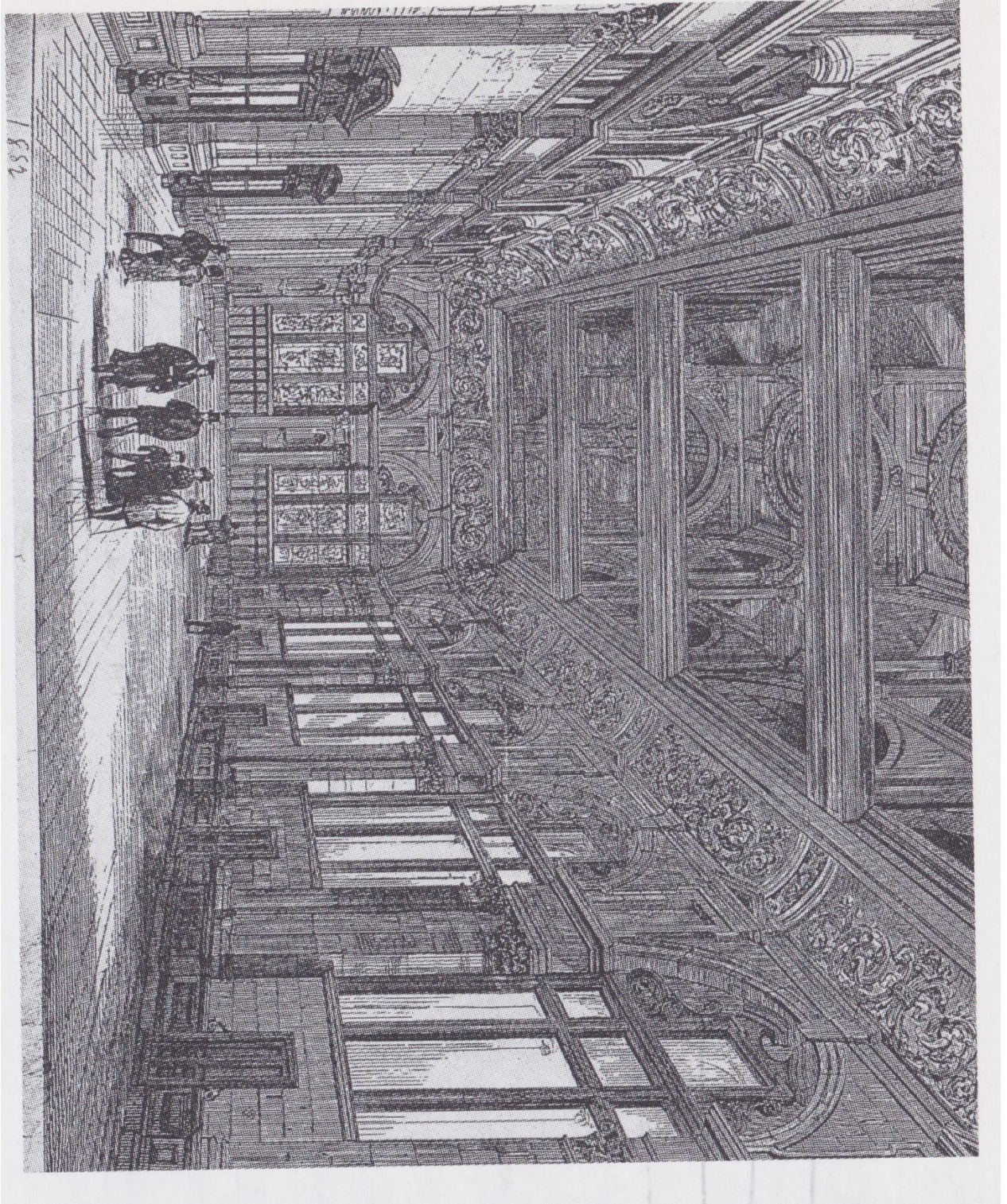


Figure 37. The ornate Assembly Hall, City of London School, 1882

Figure 38. Life on the Science Side, by E. H. Shepard



Figure 39. The art room, c.1910

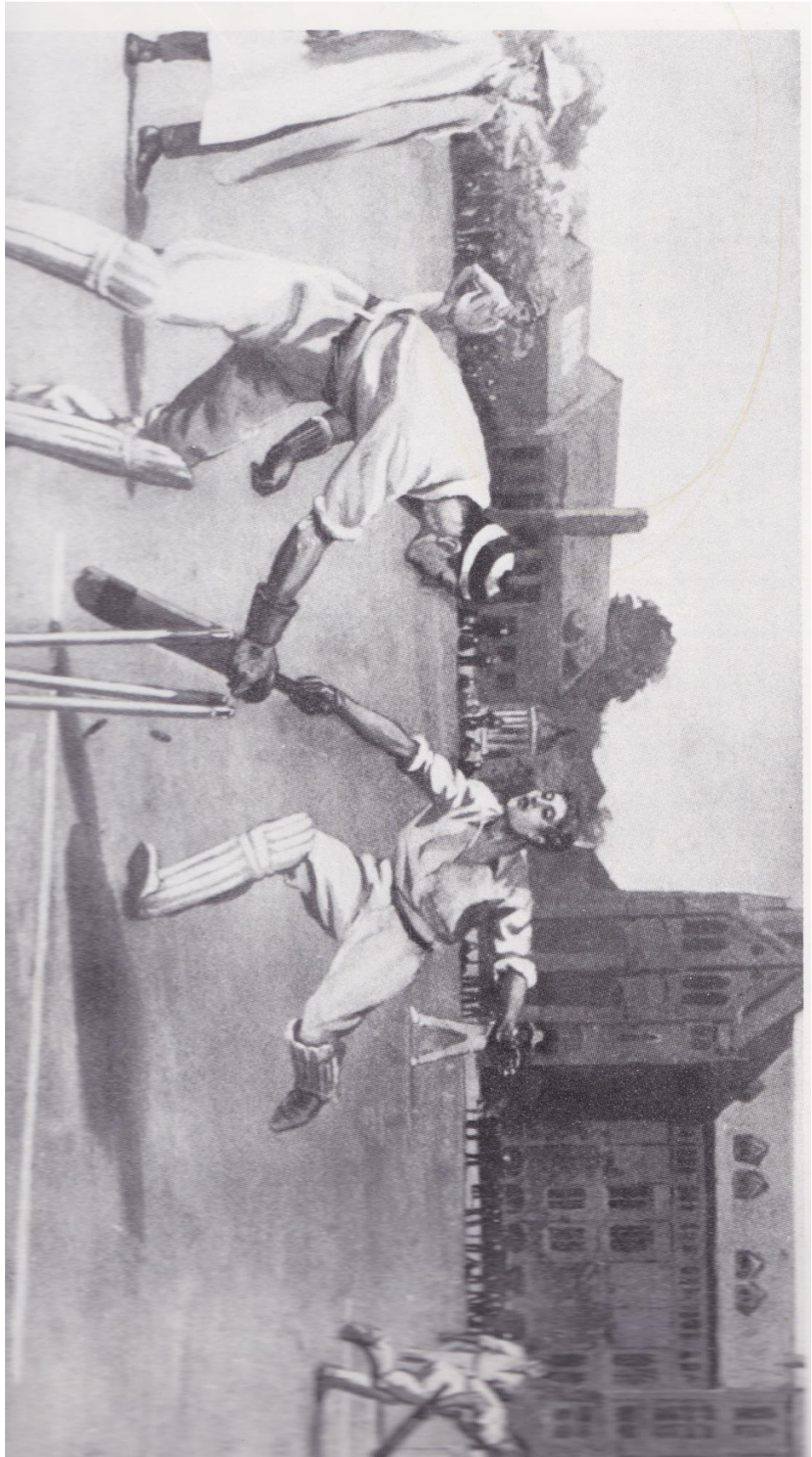


Figure 40. The sports field

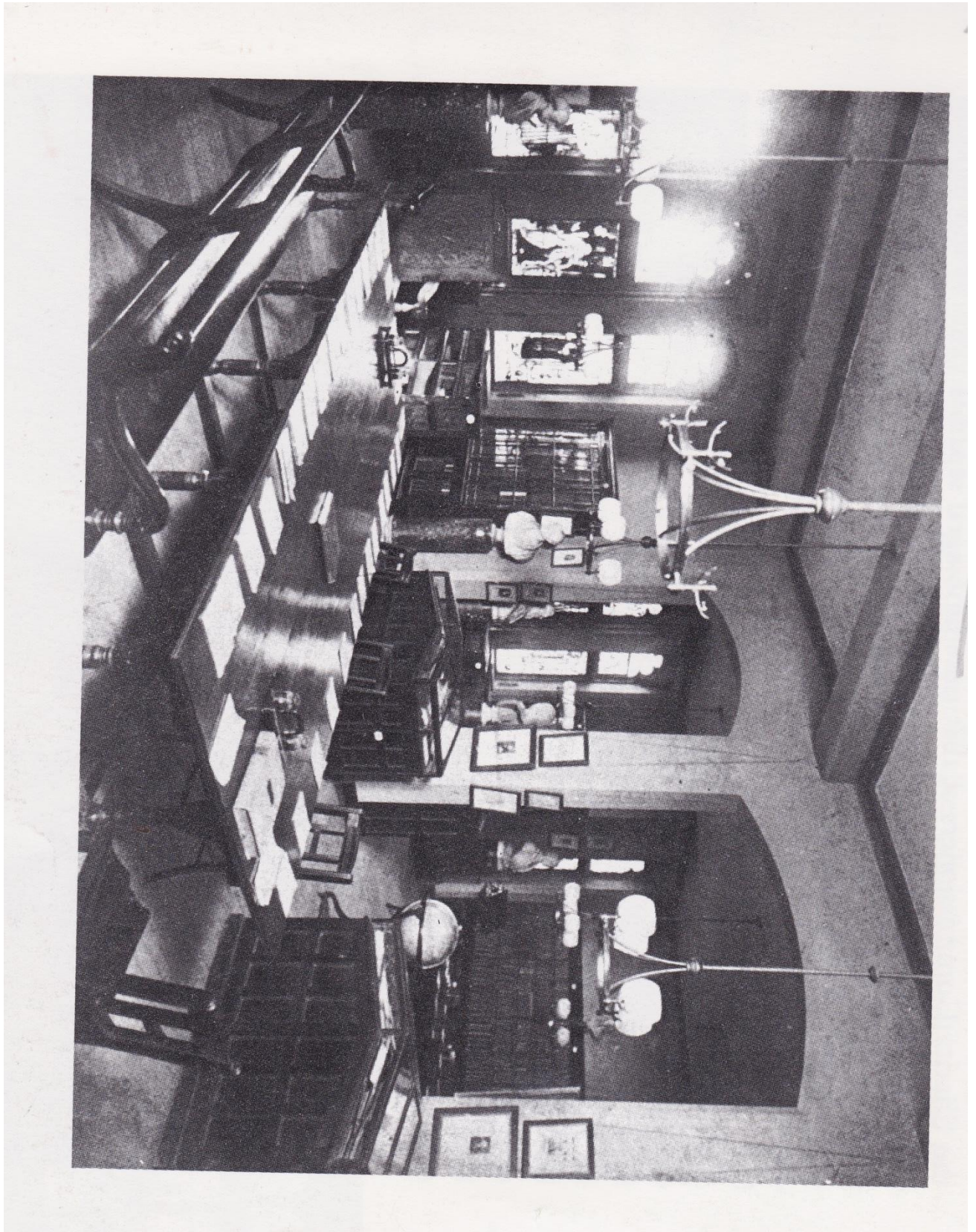


Figure 41. The main school library

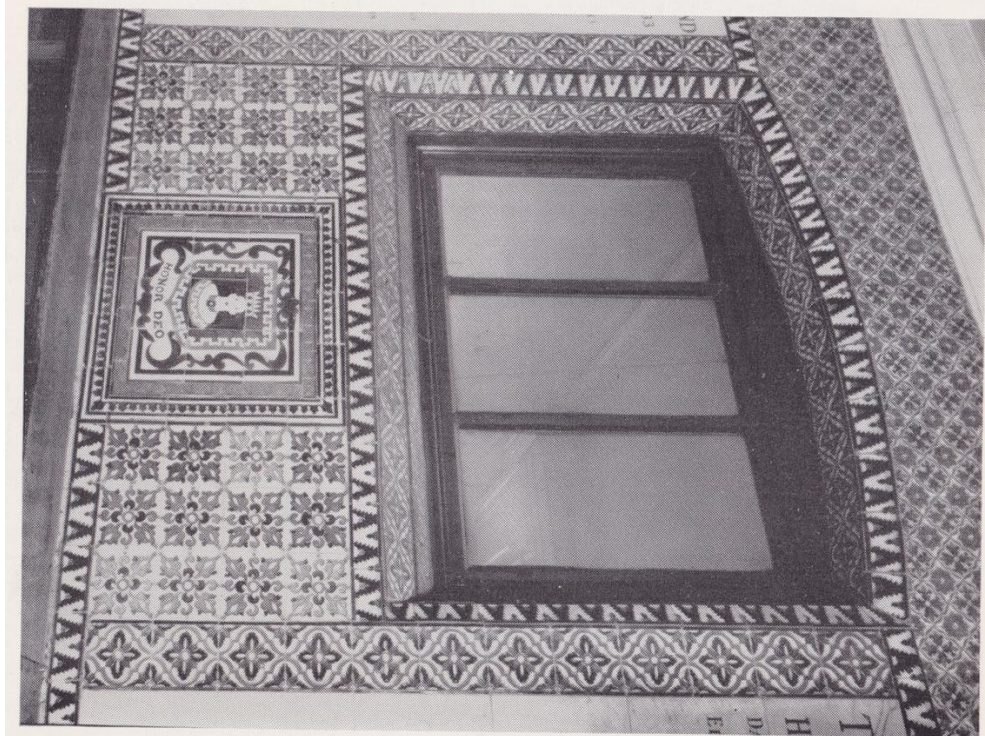


Figure 42. The wide, light corridors

Figure 43. Walker stalking the corridors, by E.H. Shepard



Figure 44. The dining hall with seating for 240 boys



Figures 45 and 46. Decoration and coats of arms of the Mercers' Company and St Paul's School added in the late 1880s-1890s



Figure 47. Statue of the school's founder, John Colet, by Hamo Thornycroft, donated 1902

